CONSOLIDATED HEARINGS BOARD

IN THE MATTER OF Sections 2 and 3 and 6 (3) of the Consolidated Hearings Act, 1981, S.O. 1981, c.20;

— and —

IN THE MATTER OF Section 12(2) of the Environmental Assessment Act, R.S.O. 1980, c.140;

— and —

IN THE MATTER OF Sections 30, 35 and 38 of the Environmental Protection Act, R.S.O. 1980, c.141, as amended;

— and —

IN THE MATTER OF Sections 24 and 61 (2) of the Ontario Water Resources Act, R.S.O. 1980, c.361, as amended;

— and —

IN THE MATTER OF Section 28 (3) of, and Regulation 164 under, the Conservation Authorities Act, R.S.O. 1980, c.85, as amended;

— and —

IN THE MATTER OF Section 40(12) of the Planning Act, S.O. 1983, c.1, as amended; in connection with site plan control of the sanitary landfill site;

— and —

IN THE MATTER OF Section 22(1) of the Planning Act, 1983 in connection with a referral to this Board by the Honourable Bernard Grandmaitre, Minister of Municipal Affairs, on a request by the Regional Municipality of Halton to amend the Official Plan for the Town of Milton to redesignate a parcel of land comprising Part Lots 3 and 4, Concession 2 N.S. in the Town of Milton from "Agriculture" and "Conservation and Hazard Lands" to permit the construction, operation and maintenance of a landfill site, Minister's File No. 24-OP-0208-A01;

— and —

IN THE MATTER OF Section 34(11) of the Planning Act, 1983 in connection with an appeal to this Board by the Regional Municipality of Halton for an order directing an amendment to By-law 61-85 of the Town of Milton to rezone the lands situated at Lot 3 and part of Lot 4, Concession 2 N.S., in the Town of Milton from "Agriculture" to permit a regional sanitary landfill site and ancillary uses;

— and —

IN THE MATTER OF Section 15(1) of the Planning Act, R.S.O. 1980 ch.379 in connection with a referral by the Honourable Claude F. Bennett, Minister of Housing on a request by Tremaine Britannia Citizen's Group for consideration of part of the Official Plan for the Halton Planning Area with respect to Sections 1 to 5 inclusive, 7, 9 and 10 of Part III D3 Solid Waste Management, Minister's File No. OPC-0026;

— and —

IN THE MATTER OF Section 64 of the Ontario Municipal Board Act, R.S.O. 1980, c.347 as amended in connection with an application by the Regional Municipality of Halton for an order approving:

a) the acquisition of land for the construction, operation and maintenance of a sanitary landfill site to contain 7.96 million cubic metres of waste in the Regional Municipality of Halton and to do so by one of two alternative methods as follows:

(i) landfilling at the site referred to in Halton's Environmental Assessment as Site F in the City of Burlington;
(ii) landfilling at the site commonly referred to in Halton's Environmental Assessment as Site D in the Town of Milton

at an estimated cost of $12,775,000.00, and the borrowing of money by way of temporary advances not exceeding in the aggregate such estimated cost pending the sale of debentures, and

(b) the issuance of necessary debentures to a maximum of $12,775,000.00 for a term not to exceed fifteen years;

— and —

IN THE MATTER OF Section 193(5) and Paragraph 84 of Section 210 of the Municipal Act, R.S.O. 1980, c.302, as amended;

— and —

IN THE MATTER OF Sections 6, 7 and 8 of the Expropriations Act, R.S.O. 1980, c.148;

— and —

IN THE MATTER OF an undertaking of the Regional Municipality of Halton to provide facilities for the purpose of receiving, dumping and disposing of waste as required by section 137 of the REGIONAL MUNICIPALITY OF HALTON ACT, R.S.O. 1980, c.436, as amended, by acquiring the land for, constructing, operating and maintaining a landfill to contain 7.96 million cubic metres of waste in the Regional Municipality of Halton.

VOLUME: 58

HELD AT: Oakville, Ontario

DATE: November 11, 1987

OFFICIAL REPORTERS

NETHERCUT & COMPANY LTD.

185 RICHMOND ST. W.,

TORONTO, ONT. M5V 1V3

TEL: 593-4802

INDEX

EXHIBITS

THE CONSOLIDATED HEARINGS BOARD

IN THE MATTER OF Sections 2 and 3 and 6(3) of the Consolidated Hearings Act, 1981, S.O. 1981, c. 20;

- and -

IN THE MATTER OF Sections 12(2) of the Environmental Assessment Act, R.S.O. 1980, c.140;

- and -

IN THE MATTER OF Sections 30, 35 and 38 of the Environmental Protection Act, R.S.O. 1980, c.141, as amended;

- and -

IN THE MATTER OF Sections 24 and 61(2) of the Ontario Water Resources Act, R.S.O. 1980, c.361, as amended;

- and -

IN THE MATTER OF Section 28(3) of, and Regulation 164 under, the Conservation Authorities Act, R.S.O. 1980, c.85, as amended;

- and -

IN THE MATTER OF Section 40(12) of the Planning Act, S.O. 1983, c.1, as amended; in connection with site plan control of the sanitary landfill site;

- and -

IN THE MATTER OF Section 22(1) of the Planning Act, 1983 in connection with a referral to this Board by the Honourable Bernard Grandmaitre, Minister of Municipal Affairs, on a request by the Regional Municipality of Halton to amend the Official Plan for the Town of Milton to redesignate a parcel of land comprising Part Lots 3 and 4, Concession 2 N.S. in the Town of Milton from "Agriculture" and "Conservation and Hazard Lands" to permit the construction, operation and maintenance of a landfill site, Minister's File No. 24-OP-0208-A01;

- and -

IN THE MATTER OF Section 34(11) of the Planning Act, 1983 in connection with an appeal to this Board by the Regional Municipality of Halton for an order directing an amendment to By-law 61-85 of the Town of Milton to rezone the lands situated at Lot 3 and part of Lot 4, Concession 2 N.S., in the Town of Milton from "Agriculture" to permit a regional sanitary landfill site and ancillary uses;

- and -

IN THE MATTER OF Section 15(1) of the Planning Act, R.S.O. 1980 ch.379 in connection with a referral by the Honourable Claude F. Bennett, Minister of Housing on a request by Tremaine Britannia Citizen's Group for consideration of part of the Official Plan for the Halton planning Area with respect to Sections 1 to 5 inclusive, 7, 9 and 10 of Part III D3 Solid Waste Management, Minister's File No. OPC-0026;

- and -

IN THE MATTER OF Section 64 of the Ontario Municipal Board Act, R.S.O. 1980, c.347, as amended in connection with an application by the Regional Municipality of Halton for an order approving:

(a) The acquisition of land for the construction, operation and maintenance of a sanitary landfill site to contain 7.96 million cubic metres of waste in the Regional Municipality of Halton and to do so by one of two alternative methods as follows:
(i) landfilling at the site referred to in Halton's Environmental Assessment as Site F in the City of Burlington;
(ii) landfilling at the site commonly referred to in Halton's Environmental Assessment as Site D in the Town of Milton.
at an estimated cost of $12,775,000.00 and the borrowing of money be way of temporary advances not exceeding in the aggregate such estimated cost pending the sale of debentures, and

(b) the issuance of necessary debentures to a maximum of $12,775,000.00 for a term not to exceed fifteen years;

- and -

IN THE MATTER OF Section 193(5) and Paragraph 84 of Section 210 of the Municipal Act, R.S.O. 1980, c.302, as amended;

- and -

IN THE MATTER OF Sections 6, 7 and 8 of the Expropriations Act, R.S.O. 1980, c.148;

- and -

IN THE MATTER OF an undertaking of the Regional Municipality of Halton to provide facilities for the purpose of receiving, dumping and disposing of waste as required by section 137 of the REGIONAL MUNICIPALITY OF HALTON ACT, R.S.O. 1980, c.436, as amended, by acquiring the land for, constructing, operating and maintaining a landfill to contain 7.96 million cubic metres of waste in the Regional Municipality of Halton.

BEFORE: H. H. Lancaster, Q.C. - Chairman

Dr. D.J. Kingham - Member

Hearing conducted at The Oakville Granary Commercial Centre, 105 Robinson Street, Oakville, Ontario, on November 11th, 1987

VOLUME 58

APPEARANCES:

T.R. Lederer and H.D. Hodgson	for the Regional Municipality of Halton (Proponent)
J.R. Tidball	for the Ministry of the Environment
T. Vigod J.F Castrilli	for the West Burlington Citizens Group
D. Estrin, F.E. Leitch and H. Dahme	for the Corporation of the Town of Milton
S.R. Garrod and A. Nurvo	for the Milton Area Citizens Coalition and several affected Milton area landowners
R.B. Tuer, Q.C. E.A. Cronk and F. Perrier	for National Sewer Pipe Limited
L.F. Longo	for Azova Investments Limited
M.J. McQuaid, Q.C. and C.J. Tzekas	for the City of Burlington
C. Mansfield	for the Ministry of Natural Resources
P. Renaud	for Cumis Limited

APPEARANCES (Cont'd):

C. Stevenson P. Hancock	for Framgard Holdings, Fosseri Investments Limited, Seriphos Investments Limited and Topic Investments
J.H. Olah	for the Halton Region Conservation Authority

* * * * * *

Nethercut & Co. Ltd.
Official Reporters
185 Richmond St. W.
Toronto, Ontario
M5V 1V3

Per: C.V. Nethercut, C.V.R.

Oakville, Ontario
November 11, 1987

--- Upon commencing at 12:30 p.m.

MR. LANCASTER: Thank you, please be seated.

CAMERON NEIL WATSON (Resumed)

JOSEPH L. RINALDO (Resumed)

MR. WATSON: At some appropriate point there are two or three things I would like to clarify arising from previous testimony.

MR. LANCASTER: Perhaps we can wait until the cross-examination is over and then during Mr. Lederer's re-examination I'm sure he will give you an opportunity to say whatever you wish.

MR. WATSON: Some of it deals with answers yesterday in cross-examination.

MR. LEDERER: I am prepared to ask Mr. Watson what he wants to clarify, but if it is in relation to any questions Ms. Cronk has asked, she ought to have the chance to question further, if for some reason the answer raises further questions. So it might be appropriate for him to do that now.

MS. CRONK: I would prefer to hear it now.

MR. LEITCH: I agree. That is the way it should be done.

MR. WATSON: First of all, there was

a matter going back to H-277, the map of Site D going back several days, and this goes back to cross-examination from Mr. McQuaid and I believe Dr. Kingham was asking about this particular area which I estimated as being 17 acres, and clearly from just looking at it there seemed to be a problem. What I have done is go through a survey which was prepared recently for the properties and to double-check the measurements, and I find that the base map we used in this case and which was prepared by the Town of Milton Planning Department, I take it from assessment maps, is not right and that lines here, and I will cross them out because I believe they are incorrect. The boundary is here. I'm going down just inside the eastern boundary of Site D, at the northerly arm of Site D, and I am showing the westerly-- I'm now showing the westerly boundary of these four properties and the westerly boundary is on this line.

CROSS-EXAMINATION BY MS. CRONK:

Q. You are drawing a line to the left of the blue line which was there.

MR. WATSON: A. I am. That line is in the northly two properties, which is 11 and 12, approximately 75 metres to the west of the blue line and in the southerly two properties, namely 9 and 10, the line is somewhat less, approximately 65 metres, and the area of the taking therefore is 10 acres, not the 17 I had indicated. As I say, I consulted a survey, a recent survey which I believe to be accurate and which we did not have when we prepared this map. The blue line itself I believe to be correct and I have checked it all back against the area shown for these different properties and the dimensions and so I believe that that is the case.

Another matter which Dr. Kingham raised involved the variation in travel times from phase to phase which accounted for the differences in the cost and the differences in the relationship between the cost of Site D and Site F, and I have prepared a comparison which I can't hand out because I am on this cord.

MS. CRONK: This is entitled Haul Times Over the E.A./Landfill Technicak Process for Site D, page 1, and page 2 is Haul Times Over the E.A./Landfill Technical Process, Site F, and in each case one way, is that correct?

MR. WATSON: A. In each case?

Q. One way.

A. That is right, Site D being

the first page and Site F being the second page.

MR. LANCASTER: That will be Exhibit H-311.

--- EXHIBIT NO. H-311: Comparisons entitled Haul Times Over the E.A./Landfill Technical process (One Way) for Sites D and F

MR. WATSON: What this shows in the three columns is the one-way travel time on the first page from the four municipalities to Site D for 2A, and for example from Burlington to Site D was 17 minutes, and then there is a change from 2A to 2B and a further change from 2B to C. In 2C we had ranges because in 2C we were working with several waste zones within each area municipality whereas in the earlier phases we were not, and the bracketed figure at the end is the travel time from the most populous zone, the main centre of population zones which I used in my analysis of travel time.

MS. CRONK: Q. I'm sorry, but could I clarify that? The number in brackets in the column for 2C is the average for the most populous zone?

A. It's not the average but the time to the most populous zone, and I used those figures in my Exhibit H-294. The second page shows the same thing for Site F. As you will see, there are in some cases some relatively significant differences arising from the work that Giffels did, and the reasons for those differences are three in nature and they are shown at the bottom of the first page and they relate to the trip start, the use of zones rather than municipal centres, the trip end, particularly in the case of Site F because there were various assumptions over the years because of the Q.E. interchange and the plans MTC had,and finally there was a modification of routes over the years and certain modifications of assumed travel speeds, but for the record I wanted to show to the Board what had occurred, and obviously from those changes you get differences. The point is that the 2C times on the right-hand side which are also the landfill technical times and the most up-to-date times are those which Giffels ultimately produced and has given evidence on and they represent the most accurate.

Now, another matter relating,or a brief matter relating to cross-examination from Mr. Leitch on UP-1 of H-286. I answered incorrectly relative to the 10 per cent allowance relative to Site D and I just wanted to clarify that. On UP-1, the second last line, it is clear that the 10 per cent we increased the $2,057,000 price for did relate to the cost of appraisals and hearings and any inflation work or discounting work was separate from that. I indicated I believe the other day that the 10 per cent was from inflation which is not the case. I was confusing it with something else.

Now, the fourth thing relates to evidence given yesterday towards the end of the day to Ms. Cronk relative to the Site D liner cost. We prepared an exhibit that showed the impact of the Site D liner and we went through that and that was Exhibit H-308. I indicated that those costs were given to us by Mr. Hiraishi and they were hypothetical in the sense that in order for them to be finalized it was necessary for the design of Site D to be changed. I just want to make sure that I have not underemphasized what Mr. Hiraishi said to us. I don't want to mislead the Board in terms of the way in which he provided us with those figures and I just want to quote a couple of things he said to us in the November 8 memo we had. He said, "A liner, in effect..."

Q. If you're going to be quoting from the memo, we have made copies and I think it should be provided to the Board and we can deal with that matter.

A. Yes.

MS. CRONK: Could that be marked as the next exhibit?

MR. LANCASTER: Yes. This will be H-312.

--- EXHIBIT NO. H-312: Memo to C.N. Watson & Associates from J.A. Hiraishi, dated November 8, 1987

MR. WATSON: I'm reading from the last sentence in the third paragraph on the first page:

"A liner, in effect, would contravene the basic underlying philosophy used to develop the design and operations concepts."

In the next line:

"...there will no longer be a need for a hydraulic trap..."

And from the third last line:

"...a liner is not required and has not shown to be necessary."

Over the page on the second line:

"...a liner requirement will entirely alter the design and operations..."

And the beginning of the next paragraph in the middle of page 2:

"We can provide cost estimates
for a liner at Site E only on
the basis that minimum changes
are made to the design and
operations as given previously."

So, with that Mr. Hiraishi provided costs and we have used the costs and I think it's all valid, but I didn't want to in any way understate the caveats that went with the provision of those costs. That is really all by clarification, and I think yesterday I was asked to count the properties in the area surrounding the area, in the secondary impact area, the area surrounding the primary impact area at Site D,and I found 81 residential properties, 34 other properties for a total of 115.

MS. CRONK: Q. Eighty-one residential properties.

MR. WATSON: A. Including farm residences and 34 other.

Q. And other meaning no residences?

A. Yes, that's right, land without

a residence.

Q. For a total of 115 separate ownerships in the secondary impact area.

A. That is right.

Q. If we could just deal with that for a moment. Was that the last of the clarification items?

A. It was.

Q. Could we deal with that one first. Yesterday when you gave us the total land ownerships in the primary impact area, you indicated there were 30 in total.

A. Yes.

Q. Which included those with residences, those without residences and the one which was a business.

A. Yes.

Q. When you came to look at the secondary impact area and in providing us with the 115 separate ownerships, are any of those in the other category businesses?

A. We have shown one business on the south side of Lower Baseline which I have included in the other.

Q. There is one business included

in the 34 ownerships under the other category.

A. Yes. There is a church and Crown land and a park but, you know, they are all in "other", the 34 others.

Q. Where is the business?

A. The business is on the south side of Lower Baseline Road due south of the site.

Q. Perhaps you could show the Board where that is. You are pointing out the location on the south side of Lower Baseline Road.

A. Yes.

Q. Amongst the "other" category you have said there is as well a church and a park.

A. Yes, the church being on the north side of Britannia and the park being at the corner of Lower Baseline and unopened Third Line.

Q. As I understood your evidence yesterday, Mr. Watson, it is your opinion that those parcels of land within the primary impact area are those which are likely to attract the highest impact. Is that correct?

A. Yes.

Q. Is that a correct statement of your evidence?

A. Yes.

Q. Do I take it from that that it is also your opinion that the parcels located in the secondary impact area will also suffer impact as a result of Site D being introduced at that location, but impacted less than those in the primary impact area?

A. Yes. I have indicated in H-293, page 9, that I would expect that a very small percentage of the value of many of these other properties could quite conceivably be negatively affected by the operation of the landfill. You will appreciate as we move further from the site that it is very difficult to deal with it property by property, but I feel that that is a reasonable zone to be concerned with.

Q. When you say other properties, you mean properties in the secondary impact area?

A. Yes.

Q. Do we have it then that it is really a question of fixing at the appropriate moment in time the appropriate percentage for the primary impact area and the secondary impact area to assess in dollar terms the extent of the impact from Site D?

A. At the appropriate moment in

time and the ultimate fixing, of course, will have to occur after the fact, but yes.

Q. My point being that the percentage will be smaller for the secondary impact area on the properties but in any event they will be impacted in your view.

A. I expect it to be much smaller but I would expect to see some impacts outside the primary area in the secondary area, yes.

Q. If we look at the primary impact area and the secondary impact area collectively, we are talking about a total of 145 separate properties suffering some degree of impact.

A. Yes. We are talking about 30 that to my mind unquestionably will suffer impact potentially of some significance and we are talking about many of the remaining 115, and I'm not saying each and every one necessarily will, but many of those additional 115 I would expect there would be some impact traceable to the landfill.

Q. If we were trying to define the maximum number of claimants based on your judgment where some impact would be sustained, that would be a category of some 145 landowners.

A. It would.

Q. Could we deal next on the points of clarification you raised this morning with Exhibit H-312, the memo you received from Mr. Hiraishi regarding the cost of a liner at Site D. I would ask you to put before you as well H-304, Mr. Hiraishi's letter to you setting out the costs of a liner at Site F.

A. Yes.

Q. Now, dealing first with H-312, in the first two pages of the memorandum, as I read it, Mr. Hiraishi sets out his explanation and observations as to why he feels a liner at Site D would be unnecessary, is that correct?

A. Would be unnecessary?

Q. Yes.

A. Well, I think...

Q. He is explaining why it is not necessary and the implications in his view if one were there.

A. He says at the bottom of the page 1 it is not required and I read the rest of it to mean that if you were going to have one there it would have implications for his design and he is not necessarily saying it's not necessary throughout. He just made that point in one place.

Q. Over at page 2 you drew the Board's attention to that part of the memorandum in which Mr. Hiraishi sets out the alterations to the design formulation that would be necessary if a liner were at Site D.

A. Yes.

Q. Could I direct your attention to page 3 of H-304 dealing with a liner at Site F and specifically the second full paragraph on that page beginning:

> "It should also be emphasized that if the requirement for a liner were known prior to our work, our design would not have been as shown in our submission. Some of the more significant changes may have included..."

And then he goes on to list three changes at Site F.

A. Yes.

Q. I take it Mr. Hiraishi is indicating in these two documents under the liner proposition that design changes would be necessary at both sites.

A. Yes.

Q. And he goes on to elaborate on what those design changes might be.

A. Yes.

Q. Would it be fair to suggest that he is stressing that the conclusion -- first, his conclusion that a liner was not necessary and he is underscoring the implications for extensive design changes if you posit a liner at either site.

A. Yes.

Q. Could I direct your attention on the memorandum dealing with the liner at Site D to page 2, paragraph A, under Total Capital Costs, and you see that?

A. Yes.

Q. That is the first costing component included by Mr. Hiraishi and it refers to importing a sand drainage layer.

A. Yes.

Q. That is equally true at Site F if we look to Item A under Total Capital Costs in H-304, we see he is referring to the inclusion of a sand mat but he does not indicate whether or not importation would be required for that sand mat in the case of Site F.

A. That's right.

Q. If we look at Item C in the memorandum dealing with Site D, as I was suggesting to you yesterday that deals with liner installation and Mr. Hiraishi's indication is that he is assuming excavation and recompaction of on-site material at Site D.

A. Yes.

Q. If we move to the same category of costing on Site F it is Item D, imported clay liner installation and then he sets out the costs.

A. Yes.

Q. In the case of Site F he is assuming the importing of clay and in the case of Site D he is assuming the use of on-site material.

A. Yes.

Q. You will recall yesterday we discussed the issue of legal costs regarding the 12 properties to be acquired by the Region and I would ask you to go to Exhibit H-286, if you would please, and to page UP-15. Do you have that?

A. Yes.

Q. As a follow-up matter on my part I would ask you to assume for the moment that the legal cost increment which would have to be taken into account in the case of Site D would be no less than $500,000. Could you assume that for the moment? Am I correct that that amount then would be added directly to the regional cost category for Site D?

A. Yes.

Q. As updated, and that would take the amount from at the low end of the range $39.5 million to $40 million.

A. Yes.

Q. At the high end of the range for regional costs, it would be increased from $40.1 million to $40.6 million?

A. Yes.

Q. The range of regional costs as revised would be $40 million to $40.6 million in the case on Site D?

A. Based on that assumption, yes.

Q. Based still on that assumption, there would be a similar change to the total costs for Site D by a like amount of $500,000 added both to the low end of the range and the high?

A. Yes.

Q. That would increase the range in the end to $64.1 million to $64.7 million, is that correct?

A. Right.

Q. As a further follow-up item to matters we discussed yesterday, you will recall you provided us with the revisions which you did to Exhibit H-294 and that was marked as Exhibit H-309 and I undertook to provide copies today to the Board.

MR. LANCASTER: Thank you.

MS. CRONK: Q. Could we turn now to the private sector costs for Site D which you updated and again to make sure that that is very clear, the two components in the private sector costs for Site D are the private haulage costs and the impact on properties values, is that correct?

MR. WATSON: A. Yes.

Q. If we could deal first with the impact question. You provided us with Exhibit H-293 and I would ask you put that before you, and which is entitled The Responses To Questions Asked On November 4.

A. Yes.

Q. I would ask you to turn to page 9 if you would. Page 9, as I understand it, sets out your calculations for off-site impact at Site D.

A. Yes.

Q. In the context and in the terminology we have been using over the last day and a half, am I correct that page 9 deals with your off-site impact calculations for the primary area of impact and the secondary area of impact?

A. Yes.

Q. It does not in any way relate to the 12 properties to be acquired for the actual construction of Site D?

A. That's right.

Q. In the high impact category, Item B, you have indicated the dollar value of adverse off-site impact to result on the introduction of Site D could be as high as $2,150,000.

A. Yes.

Q. You have indicated that the mid-point of the range was $1.1 million.

A. Yes.

Q. Those numbers,as I read page 9, are in 1987 dollars, is that correct?

A. Yes.

Q. We know that by virtue of the column on the right-hand side of the page saying 1987 dollars and then reaching from a nominal value down to your $2,150,000.

A. Yes.

Q. The mid-point of $1.1 million, as I understand your evidence, is the number you used in your update of costs for Site D for inclusion in private sector costs. You present valued it,but used $1.1 million.

A. Yes.

Q. Could I ask you to go back to Exhibit H-286 and leave this page open, page 9, but go to UP-15. Do you have that?

A. Yes.

Q. Under Site D, if we could use the numbering Mr. McQuaid invited you to use, I direct your attention to the fifth bullet, Item 5 under Site D in which you indicate:

"Potential off-site property
value impact updated; amount in
private sector cost included
as mid-point of range..."

And do you see that?

A. Yes.

Q. And then you say $1.1 million in 1986 dollars, and do you see that?

A. I do.

Q. You indicate you present valued that to $900,000.

A. Correct.

Q. Am I correct that what you included in your update under private sector costs was $900,000 if you included the present value.

A. I am checking by looking to Exhibit H-307 which does not show it beyond that point.

Q. Perhaps we could take it in steps. You present valued the $1.1 million and included $900,000; is that correct?

A. Yes.

Q. My point you are probably already aware of being that in the first exhibit, Exhibit H-293 at page 9, it indicated that the $1.1 million was already in 1987 dollars and in Exhibit H-286, page UP-15, you are quoting it in 1986 dollars and you appear to have converted it to 1987 dollars and present valued it, and clearly there is an inconsistency there and I suggest the $1.1 million was already in 1987 dollars and should not have been subject to a conversion factor.

A. It was in 1987 dollars and it should not have been subjected and I don't know it was and I would have to check to see if we made an error in writing 1986 on UP-15 or whether the error was in putting the wrong number there or whether we have a mathematical error where we discounted it for an extra year. I would have to look back to see what in fact we did.

Q. You needn't take the time now to do that,but if in fact there was a discounting that should not have taken place, can you tell us what the number should have been that would have been included instead of the $900,000? Would it not have been the $1.1 million?

A. If it was in 1987 we would have discounted it one year because we were discounting to January 1, 1987 and for '87 costs we assume they were incurred late in the year and we discounted them over the year, so it would have been $1.1 million divided by $1 million and discounting $1.1 million at 10 per cent for one year, you get $1 million.

Q. It's a difference of $100,000 between the figure you appear to have used and the figure which, if you inadvertantly discounted by too much,you should have used, is that correct?

A. Yes.

Q. That would mean, subject to your clarifying if there was an error of that kind, that we should add $100,000 of additional costs to the private sector costs for Site D.

A. Subject to clarifying, yes, there would be $100,000.

Q. Still dealing with the mid-point of the range of $1.1 million, you took that mid-point and included it as present valued in the private sector costs for Site D and you acknowledge however, do you not, in Exhibit H-286 -- sorry, H-293 at page 9, that the value for those impacted properties could in fact prove to be in the order of $2 million and it could be at the high end of the range.

A. I'm sorry, I am just taking a brief look...

Q. Do you wish the time?

A. If I could just take a moment I would appreciate it. We put in $1 million according to this in the period 1990 through 1992 and spread evenly -- no, that's not it.

Q. I suggest two things, and I am merely interested in ensuring that the correct number is before the Board. There is one of two possible explanations. The first is you discounted the $1.1 million by an additional year more than you should have. That is the first possible explanation.

A. It is possible.

Q. So we are clear on the consequences if that is what happened, to correct that we should add $100,000 to the private sector costs at Site D?

A. Yes.

Q. The other possible explanation is that the figures you have set out at page 9 of H-293 are in fact in 1986 dollars, not 1987 dollars and that is possible as well, in fairness to you, isn't it?

A. Page 9 of H-293 are in 1987 dollars.

Q. So you are compelling me to the first explanation.

A. Unless, as I suggested under bullet five on UP-15, unless we did not accurately describe what we did.

Q. Let me show you the difficulty I have with that. Would you go to H-45 please, page 2-12. This is the economic report at the technical stage, and do you have that?

A. Yes.

Q. You have indicated in the concluding sentence of the second full paragraph in that report that the impact, the property impact value used in the technical stage was $2.2 million.

A. Yes.

Q. We know all the figures referred to in H-45 are in 1986 dollars.

A. Yes.

Q. Then, on the same page...

A. Other than a couple of noted exceptions, but this is not one of them.

Q. So the $2.2 million is in 1986 dollars?

A. Yes.

Q. At the bottom of the page you indicate the total private sector category costs for Site D are $14.6 million.

A. Yes.

Q. Would you go back to page 2-9, and do you have that, 2-9.

A. Yes.

Q. Recognizing that the private sector costs are both haulage and impact, you told us first that the total of the two is $14.6 million, and at page 2-9 you indicate the private haul costs at the technical stage for Site D were $12.7 million.

A. Yes.

Q. If we deduct the $12.7 million from the $14.6 million which is the total it appears you used $1.9 million for the impact value at Site D at the technical stage.

A. One-eight-five. I did it for Mr. McQuaid.

DR. KINGHAM: But I had noted when you did this before, I thought you told us that the $2.2 million was 1990 dollars and when you present valued that back to 1986 it came to 1.85 and everything added up so I have the same problem.

MR. WATSON: The $2.2 million is 1986 and it is inflated up to the years in which it would be incurred, which would be after the site was opened in 1990, '91 or '92, so it is inflated up at 5 per cent a year to get to those points and then it is discounted back at 10 per cent from those years and when you do that you get $1.85 million.

DR. KINGHAM: The $2.2 million is in which year's dollars?

MR. WATSON: '86. It is in 1986 dollars. We take the $2.2 million times 105 and times 105 and we inflate it up to 1990 and remove a third of it, discount that third back the three years to January 1, 1987, and then we inflate the balance up another 5 per cent to 1991 and take half of that and discount that back and the balance we inflate another 5 per cent and it works out.

MR. LEDERER: A man with confidence in his work.

MS. CRONK: Q. I think the problem was the speed at which that was done and the confidence with which it was stated. Can we come back to the mid-point range of $1.1 million and we have the two alternative explanations which you have confirmed and you have also confirmed that on page 9 of H-293 you are certain that those numbers are in 1987 dollars.

A. Page 9 of H-293 is definitely in 1987 dollars.

Q. Could I go back to the other issues relating to the use of that mid-point, assuming that in fact it leads to an additional increment of $100,000. You took the mid-point of the range $1.1 million but you acknowledge at page 9, I suggest, that the actual dollar value of dimunition in property value that could occur could be as much as

$2 million; correct?

A. It could be.

Q. Were that the case, and simply for the purposes of the record and later reference by us, if it was $2 million, recognizing that you included $900,000 in the actual calculation that you did, we would have to increase the private sector costs for Site D if the actual value of the diminution was $2 million, is that right?

A. Yes, but there are two provisos and one is as we discussed at some length we did put in the real estate contingency $300,000 relating to property value diminution, whether a payment relating to injurious affection or simply a buyout. That is part of it. Then you mentioned the figure of $900,000 which was the discounted value, but we started at either $1.1 million or $1 million which is what I am unsure of and we would go from either $1 million or $1.1 million plus this $300,000 allowance in the regional real estate contingency.

Q. Let me stop you. The $300,000 is the real estate contingency for regional costs and we know that number is there and we will come to that in a moment but I'm talking about what would happen to the private sector costs.

A. Yes, but the regional costs and that component of the regional cost is to reimburse the private sector for any loss incurred and so therefore it overlaps, if you will, or it's another component of that private sector property value loss.

Q. I'm dealing with the mathematics for a moment. If the value of the impact were $2 million and not $1 million, by what amount should we properly increase the private sector costs for Site D?

A. $700,000.

Q. Should we in that event similarly increase the total cost for Site D by $700,000?

A. Yes.

Q. Now, bearing in mind what we referred to a moment ago in H-45, at the technical stage you determined that the high end of the range of property diminution value was $2.2 million.

A. Yes.

Q. You have explained to the Board what you did with that number to arrive at the proper present values to include in your costs for Site D.

A. Yes.

Q. In the end it was $1.85 million rounded to $1.9 million; is that correct at the technical stage?

A. Yes, correct.

Q. It seemed to me, Mr. Watson, and I would ask you to confirm if I am correct, it seems to me that in using the $2.2 million at the technical stage, what you did was take the high end of the range to assume the worst case in your costing, you present valued it and included it in your costs.

A. Yes.

Q. Were you to employ the same methodology in your update, you should have used the $2 million and present valued it to $700,000 as an increment and included that in your update, had you used the same approach.

A. That is correct. On the other hand if we used the same approach we would not have a property value range for the acquisition of the site itself. We have gone to a property value range, namely $3 million to $3,650,000 for Site D and the $2.2 million to $6 million for Site F because we believe that we will be within those ranges and we should be using a range in those particular cases, and we felt in the case of off-site property value impact rather than in essence assuming zero to some level, that it was more appropriate to be in the middle of the range and we were confident there would be an impact and rather than having such a broad range we were more comfortable in the middle. So, there are two different treatments of ranges for different purposes, but I feel that it is appropriate.

Q. The range you used for land acquisition costs you referred to at both Site D and Site F are particular to the properties which will have to be acquired for actual site development.

A. Yes.

Q. They have nothing to do, I suggest, with the range you used for assessing diminution in property value for the primary impact area and the secondary impact area, is that not so?

A. Right.

Q. Moving to the second point you raised, is it then your evidence that in looking at it again in the last year you felt more comfortable in using a mid-point of the range, whereas at the technical study stage you were using, I suggest, a worst case scenario by including the higher end of the range.

A. Yes.

Q. My question is had you employed in your update the same methodology which you used at this technical stage to show the Board the worst case scenario, you should have used the $2,150,000 property diminution value and worked that into updated figures, isn't that so?

A. Yes.

Q. You referred a few moments ago to the $300,000 included in the real estate contingency built into the regional cost component for Site D and you told me yesterday, as I understood it, that that $300,000 was an amount or the amount you had included in regional costs for injurious affection. Have I got that correctly?

A. Item 6 of the exhibit I am searching for.

Q. The exhibit explaining the...

A. ... composition of the regional real estate contingency. That was H-288.

Q. Item 6 on 288 which we discussed yesterday in the case of Site D, the $300,000, is the amount you included and the only amount you included in the regional cost component for Site D dealing with injurious affection for the primary and secondary areas of impact; am I correct?

A. Almost. Injurious affection and/or purchase of impacted property in lieu of injurious affection.

Q. When you were talking about the purchase of property I would simply want to make it clear that we are talking the 145 properties in the primary and secondary impact areas.

A. We are not talking about the site itself in H-279.

Q. Could you turn to H-45 at page 209. Do you have that?

A. Yes.

Q. I direct your attention to the first paragraph which reads:

"Private sector costs for Site D include private hauler costs (servicing industrial and commercial establishments and residences outside municipal collection areas) and possible impact on property values. The Region may assume a share of the latter if they are

substantiated and required
under the Expropriations Act."

Stopping there for a moment, you are acknowledging, I suggest in that paragraph, that whatever the ultimate total dollar value for impacted properties in the primary and secondary area, a portion of that may have to be assumed as a regional cost, not a private sector costs but a regional cost under the Expriopriations Act.

A. Yes.

Q. In addition I suggest if there are outright purchases by the Region of some of those impacted properties, the purchase price paid would also be a regional cost not a private sector cost, is that not so?

A. Yes, but by the very nature of the Region incurring the costs it removes from the private sector an equivalent cost.

Q. I understand. My point being that if the appropriate property diminution value is in fact $2,150,000, it is a portion of that number that the Region may have to assume.

A. Yes.

Q. You have built into your calculations $300,000 for that purpose, be it by way of injurious affection or purchase, am I correct?

A. Yes.

Q. I suggest that given that you have 145 properties which will suffer impact in your opinion, some more than others, that $300,000 is on the low side of the reserve figure to accurately reflect the regional economic consequences to the Region under that item. Would you not agree? It's on the low side?

A. Of the 145, and I don't want to go over it again, but definitely the primary impact area and I said some, probably many of those in the outer 115 and I think you said all of them. I'm not saying all of the 145 but many of them. Now, as for whether it is an under-allowance, I guess we go back -- I will simply go back to the St. Pierre case and go back to what was said. I think with a lot of properties what will be lost or what would be involved is a loss of prospect and the neighbourhood will change and the privacy will disappear. I'm not expert in these matters,but I am aware that the courts have consistently held since the William Aldred case in 1610 that loss of prospect is not compensible. For that reason I don't think this is necessarily an under-estimate, no.

Q. You will recall that yesterday when we discussed the minimum market value for the 30 properties in the primary area of impact we agreed that based on the numbers which you had used in your evidence we might fairly regard that value as approximately $5.2 million. Do you recall that?

A. Yes.

Q. If the Region were obliged to pay as a result of the negative property impact 30 per cent of the market value of those properties, I suggest that what the Region would suffer as a cost would more be in the vicinity of $1.5 million rather than $300,000 and wouldn't that be the result of the mathematics.

A. It would be a result of the mathematics, but you mentioned...

Q. Even if the Region were to assume 10 per cent based on the market value of those properties you would be looking at $500,000 and not $300,000.

A. If the Region was obliged...

Q. If those percentages applied.

A. Yes, that's right.

Q. In either case the amount that would have to be borne by the Region doesn't change the bottom line, I suggest, of the costing you have done for Site D but it certainly changes the proportion of those costs to be borne by the Region.

A. I'm sorry, I'm not clear on what changes the proportion to be borne by the Region. If we assume it has to bear more?

Q. If the Region had paid $500,000 or $1.5 million, that would affect the regional cost proportion.

A. If they had to pay more, then their proportion would go up, yes.

Q. And the private sector costs would go down?

A. It would.

Q. My point simply being that we would have to make an adjustment to that portion of the cost be borne by the Region as opposed to the portion to be borne by the private sector.

A. We would.

Q. Could I ask you to go to page UP-2 of H-286 if you would. Do you have that?

A. Yes, I do.

Q. Could I direct your attention to the Wombat property briefly. You have indicated the total acreage of the two Wombat parcels is

115.58 acres.

A. I believe it's one parcel.

Q. I understood that the portion at the bottom was 25 acres and the other portion within the site area was 90.38 acres. Is that correct?

A. Yes.

Q. I direct your attention for a moment to the 25-acre parcel at the bottom. Can you tell me how access today is gained to that portion of the Wombat property?

A. I believe -- legally or physically?

Q. Physically. Where is the road access today?

A. I don't know. I believe there is a right-of-way here, but I don't know where physically they are accessible.

Q. Would you assume...

MR. RINALDO: A. Perhaps I could help you. I believe the access is through here and that is what I was told by the real estate department.

Q. Through the larger parcel?

A. Through the larger parcel and

that is one reason why we are purchasing that.

Q. Is that because if you were to take only that portion of the Wombat property that lies within the site, the bottom 25 acres would be landlocked?

A. In effect that is the primary reason we are taking the 25 acres. One of the reasons we didn't put any resale value on it is primarily because the only two buyers we have or three buyers are these two here and as our property management department told me, in effect you know -- they know they are the only buyers around and you know you won't get a good price and that is the bottom line really. We feel we could probably lease it to them,but it has a very nominal value and it probably wouldn't even recover our cost of taxes.

MR. WATSON: A. That essentially is what we have said all along relative to that property and the property to the northeast.

Q. And there is the physical constraint I suggested arising out of access.

A. Yes.

Q. You have also mentioned in your report dealing with these properties that as the site is decommissioned you feel the property values will begin to recover. Do you recall that?

A. Yes, they will. I believe they will gradually recover during the life of this site, particularly after decommissioning.

Q. Decommissioning in that sense as I understand it is when the after-use program for the site is actually in place.

A. Yes, when the haulage trucks stop hauling and the earth movers stop moving earth and the after-use program is underway, yes.

Q. We have heard evidence that the after-use program for Site D will take some five years after site closure to be fully implemented. If that is the case and I have correctly stated the evidence, Mr. Watson, that would mean, would it not, that there would be a continuing impact to some degree on the primary and secondary impact areas for 25 years after the commencement of site operations?

A. Yes. Obviously the primary impact is during the 20 years, but if there is a five-year period during which additional work is being done on the site and there are additional movements of earth and so forth, then that obviously is not as severe as the operation of the landfill and the recovery would accelerate after the closing of the landfill operation itself, but it would not be complete until the after-use were in place.

Q. We would be looking at impact then in some degree for a minimum period of 25 years.

A. Yes.

Q. Is that correct?

A. I would think so, yes.

Q. If the evidence before the Board indicated that leachate trucking would be required for a good 20 years after site closure, that would mean we would have lingering impact, if you will, for at least another 15 years beyond that 25-year period, isn't that so?

A. Yes.

Q. We could be looking for the properties within the primary and secondary areas of impact, impact on a graduating scale for some 40 years in total?

A. Yes. I'm not sure of the frequency of leachate truck movements and as to whether that would be sufficient to have a perceptible effect, but it is an effect, yes.

Q. Could I turn for a moment to the calculation you have done with respect to

Site F. In dealing with Site F, as I understand your evidence, you valued Site F on the basis of use as an industrial development and secondly on the basis of a landfill facility. Do I have that correctly?

A. Yes.

Q. In doing that you were required to make various assumptions, one of which related to site capacity.

A. Yes.

Q. Could I ask you to go to Exhibit H-286, UP-9. In dealing with site capacity as I understand it for Site F you did a valuation based on the most likely landfill tonnage required by the Region and that was your maximum and, as well, based on regional requirements for 8.75 years as your minimum; is that correct?

A. The maximum in fact I believe I indicated involved 3.2 million tonnes which is somewhat less than the full regional requirement.

Q. And your minimum was based on the regional requirements of 8.75 years?

A. Yes.

Q. If we look at UP-12 that is your Figure 2, and the bottom footnote indicates which portion of the graph relates to capacity for 100 per cent of the regional landfill requirements for 20 years.

A. Yes.

Q. Am I correct that your graph shows that at a top value of $5.85 million, Site F can accommodate 100 per cent of the Region's waste for 20 years based on a tipping fee of $25?

A. That is what it says but I have clarified that we were working with something less than the total regional landfill requirement, and I was thinking at the time of matters such as trans-shipment of inert wastes to Steetly and that sort of thing, so we basically worked with 80 per cent of the total.

Q. When you calculated the 8.75 years value of capacity you had regard, as I understand it, to an application made in 1982 by National Sewer Pipe for a Certificate of Approval under the Environmental Protection Act for a privately-operated landfill site on Site F lands?

A. Yes.

Q. You reviewed that application, as I understand it?

A. Yes.

Q. You considered it in coming to your valuation conclusions on the 8.75 years scenario?

A. Yes.

Q. I am showing to you now a document entitled Application for a Certificate of Approval for a Waste Disposal Site dated April 13, 1982, under the signature of the then-president of National Sewer Pipe Limited. Is this the original National Sewer Pipe application dated 1982 to which you had regard and without the various reports? This is just the application document.

A. Yes.

MS. CRONK: Could that be the next exhibit?

MR. LANCASTER: That will be N-313.

--- EXHIBIT NO. N-313: Application for a Certificate of Approval for a Waste Disposal Site (Landfill)

MS. CRONK: Q. I would refer you to page 2 of the application and to item 6(i) which indicates the total area of the site being proposed for use as a landfill facility. Do you see that?

MR. WATSON: A. Yes.

Q. At that time the total area is

cited to be 70.23 hectares or 173.5 acres.

A. Yes.

Q. At that time the total area to be filled was proposed to be 50.9 acres.

A. Yes.

Q. For a total capacity of 1,574,000 tonnes.

A. Yes.

Q. Is that the 1.6 million as rounded you referred to in your evidence?

A. Yes.

Q. This application was submitted in April of 1982.

A. Yes.

Q. That is when it is dated.

A. Yes.

Q. Mr. Lederer introduced before the Board documents marked as Exhibit H-299, and I can provide you with a copy, and dealing with the first document in the bundle of three, Mr. Watson, in paragraph 2 it indicates at the time of submission of the original application in April, 1982, the design concept of a site called for an estimated capacity of approximately 1.6 million tonnes.

A. Yes.

Q. That is what we just looked at in the original application.

A. Yes.

Q. And he goes on to indicate that the size of the site was reduced from a previous preliminary design due to the presence of a number of plant species identified as rare.

A. Yes.

Q. You see that?

A. Yes.

Q. Then, moving over to page 2 of that letter, I direct your attention to the second last paragraph which reads:

> "We have now enclosed copies of a revised Application for a Certificate of Approval for a Waste Disposal Site (Landfill) on the NSP property. This application covers the establishment of a landfill site on the property as generally detailed on Map 13D. The site will have a capacity of 3,754,000 tonnes."

And do you see that?

A. Yes.

Q. This letter was dated December 18, 1986.

A. Yes.

Q. If you turn to the second document in the bundle, this appears to be the revised application submitted in December of 1986 by National Sewer Pipe.

A. Yes.

Q. If you look to page 2 of the revised application,it confirms that the amended estimated capacity of the site was 3.7 million tonnes.

A. Yes.

Q. And the total area to be filled as proposed under the revised application was 100 acres.

A. Yes.

Q. And the total area of the site to be used for landfill as proposed under the amended application was 200.6 acres.

A. Yes.

Q. Again if we look at the last page we see that this amended application was submitted under the signature of the president of National Sewer Pipe Limited.

A. Yes.

Q. If we look to the third document in the bundle, it's a letter dated April 12, 1984. Do you have that?

A. Yes.

Q. I direct your attention to page 2 and the letter refers to the original application submitted in 1982 and indicates in the last paragraph, I suggest, that National Sewer Pipe was then reviewing the implications of various changes dealing with rare plant designations and National Sewer Pipe would be revising its applications to substantially increase the capacity of the proposed landfill site. Isn't that so?

A. Yes.

Q. That correspondence was copied to the City of Burlington, the Ministry of the Environment and to the Ministry of Housing, amongst others.

A. Yes.

Q. Dealing with the first letter, that of December, 1986, that letter was copied to the Region of Halton, the City of Burlington, the Ministry of the Environment and the Ministry of Municipal Affairs, amongst others.

A. Yes.

Q. Could I ask you to put up your land use diagram of Site F if you would, please, Mr. Watson.

DR. KINGHAM: H-278.

MS. CRONK: Thank you, sir.

Q. You may recall that your attention was directed during cross-examination to the area of land which is situate immediately below the closed Bayview Park landfill site.

MR. WATSON: A. Yes.

Q. It was suggested to you in cross-examination that the Region has indicated through its council to the Board that the Region will not be seeking to expropriate the acreage immediately below Bayview Park. Do you recall that?

A. Mr. McQuaid mentioned that, yes.

Q. As I understand it,when you did your costing of Site F, you did so on the basis that that acreage was included; correct?

A. Yes. I costed the total navy blue area with a total of 219 acres.

Q. You told Mr. McQuaid, as I recall your evidence, that you were not in a position to indicate whether the land south of Bayview Park was suitable for a landfill. Do you recall that?

A. Yes.

Q. Did you, in doing your costing and your examination of Site F, differentiate between the land south of Bayview Park and the lands to the west of Bayview Park?

A. No.

Q. Can you help the Board as to what uses there are in the immediate vicinity, to the best of your knowledge, of the acreage immediately below Bayview Park? What is around that acreage? Perhaps you could move clockwise from the north to the east to the south and then the west and explain what they are.

A. Within the site?

Q. The 70-odd acres to the south of Bayview Park. What are the land uses surrounding it?

A. I don't know.

Q. To the north looking at H-278 is Bayview Park.

A. Yes.

Q. To the west obviously it's Site F or the balance of Site F.

A. Yes.

Q. I get my east and west mixed up,but to the east of King Road, do you know what that white parcel of land is or how have you designated it on your map?

A. We are speaking of I?

Q. I and then J. Looking at J, what is J?

A. I,I understood,was a quarry and I walked it.

Q. That is the National Sewer Pipe quarry?

A. Yes.

Q. What is J?

A. J is simply a parcel of land that has been for sale and recently purchased.

Q. It is vacant today?

A. Yes.

Q. What about the property marked in red immediately below that bottom part of the L. Are they government-owned lands?

A. Highway 403 and the Hydro right-of-way.

Q. How about the brown hatched parcel immediately below that?

A. That is NSP holdings.

Q. Is that the area to which reference has been made in your cross-examination as a discharge area?

A. Yes.

Q. Dealing with the discharge area and the issue of impact in that area explored with you by Ms. Vigod, are you aware that that land is currently swamp-like today or have you visited that section of lands?

A. I didn't walk through it, no.

Q. Would you agree with me that if there is negative impact to be occasioned by Site F in that area south of Highway 403, that the primary target of that impact would appear to be National Sewer Pipe as the owner of those lands?

A. Yes.

Q. Could I ask you finally to put up H-297, one of your flip charts, as I recall. As I recall your discussion with Mr. McQuaid, this chart lists in order of importance those factors which you regard as most significant in doing a comparative economic analysis of Sites D and F.

A. Yes.

Q. They are listed in order of priority and importance insofar as your approach to the matter is concerned?

A. Yes.

Q. The first and most important factor you have listed is regional costs.

A. Yes.

Q. You have already established that in the category of regional costs overall, Site F has, on the calculations you have done, a $1 million to $3.8 million cost advantage over Site D; do you recall that?

A. On UP-15?

Q. Yes.

A. It's $1 million to $3.8 million, yes.

Q. That is the range of advantage for Site F, without taking into account any incremental costs at Site D for legal costs or greater value for property impact diminishment, is that not so?

A. That is correct as far as legal costs, and it would be any net increase in legal costs in looking at the purchase of Site D versus the purchase of Site F and, given that we have 12 parcels on D and several on F, I would assume that there would be an additional legal cost insofar as Site D was concerned and then the possibility of additional property value impact if we moved to the higher end of my range...

Q. That would further widen the advantage for Site F.

A. It would move to the top end of both ranges which would have us at $600,000 for F and $2,250,000 for D, and so that is $1,550,000.

Q. We have broadened the range by at least $1 million.

A. Simply moving to the top of the range?

Q. That plus the legal costs.

A. Depending on what we assume for the legal costs, and I'm not clear what they would be, but it would broaden the range, both of them.

Q. You told me that using just the calculations you have made without any revisions to them, that that range of $1 million to 3.8 million in percentage terms is 2.6 per cent to 10.6 per cent, and do you recall that from yesterday?

A. Yes, 10 per cent of the upper -- 2.5 per cent at the lower end and 9.6 rounded to 10 at the upper.

Q. Could I ask you to go to H-14, the comparative analysis for the two sites, your

Schedule K-1. Do you have that?

A. Yes.

Q. That sets out the comparative costing analysis you did for both sites at the technical study phase.

A. Yes.

Q. Dealing with criteria 2, regional costs, you indicate that Site F was then the preferred site.

A. Yes.

Q. It was cheaper than Site D in that category of costs at that time by $600,000 represented by 1.6 per cent.

A. Yes.

Q. Based on that differential at that time you indicated the strength of preference for F was minor.

A. Yes.

Q. We now have a differential of anywhere between 2.6 per cent and 10 per cent and $1 million to $3.8 million and potentially another $1 million higher than that and that is a material change in the differential from what existed at the technical study phase, is it not? We have gone from $600,000 to $4 million-plus at the high end.

A. It has moved it throughout most of the range outside of this difference of 3 per cent I spoke of earlier and so it's 3 per cent here and I think I said in my evidence that differences of perhaps 5 per cent were...

Q. ... material.

A. Less than 5 per cent was not that significant since we are dealing with forecasts and so on. So an upper end of the range at 10 per cent or possibly more and that is enough in my view to remove the minor and to put something to reflect the higher designation. I only used minor and major here and I used major for example for a 6 to 13 per cent of tipping fee difference with respect to Site D.

Q. I suggest it should be major in terms of regional costs at Site F based on your update.

A. I think given that there is a lower end of the range I would be somewhere in between and introduce a medium category, however that is termed.

Q. So 13 per cent is major and 10 per cent isn't.

A. Well, we have got -- I think we have about 2.5 per cent to 9.6 and the 9.6 I think is of significance but the 2.5 is down in my range of comparative insignificance.

Q. Is it fair to say that whatever word you use the strength of the preference for Site F in that category has been significantly enhanced?

A. It has been enhanced.

Q. If we move to what you have listed on H-297 as the second most important category, the overall present value of cost, in that category we have established in our discussion that Site F is cheaper than Site D by at least $1.3 million to $4.1 million. Do you recall that?

A. $1.3 to $4.1 million.

Q. At the technical stage, in that category Site F was the preferred site.

A. Yes.

Q. And the strength of preference was described as minor.

A. Yes.

Q. That is when the differential between the two sites was $1.8 million or 2.9 per cent.

A. Yes.

Q. Today the difference could be as much as $4.1 million or higher depending upon whether you make the increments to the Site D costs we have discussed. Isn't that so?

A. $4.1 million. We have discussed increases, I guess earlier in cross-examination, and we discussed other matters such as sewering Site D, but I have indicated that that is not what is being proposed.

Q. The differential at the high end could be $5 million-plus based on what we have discussed with respect to the property value diminution and the legal costs and it could be higher.

A. That's possible.

Q. I suggest to you in any event that the change between the technical study stage and your costing today indicates that the strength of preference for F is no longer minor and as well has been considerably enhanced. Would you not agree?

A. The preference has been increased, yes, and the lower end has dropped a little bit, $500,000, and the upper end has more than doubled, and I'm looking at the $1.8 million, and so we have a band there and I would simply say we have increased it.

Q. In fact at the upper end of the range, if you assume a $1 million incremental cost at Site D for the matters you and I have discussed, then the upper end of the differential between Site D and Site F has tripled, has it not, it has gone from $1.8 million to $5.4 million or $5 million?

A. I have a little difficulty as to exactly where we have moved the $4.1 million and I agree under certain circumstances we could argue that it has moved up and I won't argue it has moved up and I don't see any question about that, but I'm not sure how far up.

Q. It is clearly a stronger preference today.

A. It is, yes.

Q. Can we look at your third most important category according to H-297, off-site property value impact, and at the technical stage Site F was the preferred site.

A. Yes.

Q. At that time the strength of preference was described as major.

A. Yes.

Q. That was based on a value for

negative impact in the amount of $1.9 million.

A. That was a net difference.

Q. Yes.

A. Yes, between F and D; $1.9 million.

Q. Would you agree that the strength of preference for Site F certainly has not changed in the last year and indeed may well have been enhanced?

A. Now we have a difference that has narrowed and working with the mid-point of the range, the difference between $1.1 million and .3 million which is $800,000 and so we have a significant decline. On the other hand, I was as much concerned with the number of properties that I would expect to be directly impacted as I was with the amount. I don't know frankly on those properties -- I think it is more significant that you will have possibly 100 propertied impacted with D and a far fewer number with F.

Q. Could I suggest to you that the ranking certainly has not changed and in fact it is probably a bit more enhanced than it was at the time you looked at it at the technical study phase and based on reviewing the total number of properties impacted at Site D.

A. The number of properties hasn't changed so it isn't enhanced and the values we are talking about are down a little bit, so I would conclude that the preference at F, that F had has diminished a little bit.

Q. But it's still major, is it not?

A. Yes, it is still major because of the number of properties involved in the case of D and I believe that to be major. We are talking about, as I mentioned, individual households that may be obliged to bear a burden which would be significant to them and so that $1 million in this instance is much more weighty than $1 million to be borne by the Region or an area municipality, obviously because over the tax base over which it can be spread.

Q. If we look at the four evaluation criteria you have listed as being of most importance, am I not correct that Site F has a stronger, or there is a stronger preference for Site F in three of those categories for F than in D in each of regional costs, overall present value costs and off-site property value impact?

A. We talked about 1-A and that

was the case and 2 and that was the case and we talked about 3 and I'm sorry, what did you put to me?

Q. I'm suggesting that out of the three evaluation criteria you have listed as most important overall in the regional category, in the overall cost category and in the off-site property value category it is clear that Site F is the preferred site. Isn't that so?

A. It's clear for 1-A, for 2 and for 3.

Q. Let's look at the other items. If you look at criteria 3 on page K1, regional up-front costs, that, as I understand it, relates to the up-front financing requirements.

A. Yes.

Q. And the details of that are set out at K3.

A. Yes.

Q. At the technical stage Site D's up-front capital costs were lower than Site F by approximately $3 million according to your table.

A. Yes. As far as debenture requirements.

Q. I'm talking about the up-front

capital costs.

A. The capital costs for the construction period, for the two years, the difference was $2.9 million and the debt difference was $3.6 million.

Q. Looking at it today you have indicated that dealing with your range concept for capital costs, up-front capital costs, there is now at the lower end, D is more expensive and at the higher end of the range of costs F is more expensive, isn't that so?

A. Insofar as the two years of up-front capital costs?

Q. Yes.

A. I would have to look at H...

Q. H-285 and H-287.

A. I was looking at 307.

Q. I am suggesting that at the low end of the range of costing the cost of Site D is higher than that of Site F and at the high end Site F is higher and we have again, depending upon which end of the range you take, D being lower or F being lower in costs. Isn't that so?

A. So, at the low end, yes, F was $1.7 million less and at the high end it was $1.4 million more than D.

Q. As I have suggested, at the low end of the range F is cheaper and at the high end of the range D is cheaper.

A. Yes, it is.

Q. That is, I suggest, a change from where you were at the technical study phase and you now have, depending upon which end of the pole you take, you have an advantage for either of the two sites, isn't that fair?

A. Yes.

Q. I suggest to you that it is no longer appropriate to suggest a major advantage to Site D in that category.

A. That is correct.

Q. If we look finally at your conclusions at the bottom -- the area municipal costs, criteria 5, and at the time of the technical stage you were describing a minor advantage for Site D based on a $200,000 discrepancy.

A. Yes.

Q. At least in dealing with that costing item, you regarded $200,000 as being significant enough to attribute an advantage to one site versus the other.

A. We did. It was very minor

but it was minor. It was a difference and it was minor.

Q. The difference today is $100,000 between the two sites? Are you nodding yes?

A. Yes, I am.

Q. The difficulty I'm having is I am trying to be fair to you. When I was in school I always hated the teacher who wouldn't give you an A but an A-/+ and I didn't know what that meant,but in fact can we summarize this by saying that the strength of the preference for Site F is today stronger than it was at the technical study stage and in the two other cases we have looked at, Site D has lost its designation as a major advantage to cite and it has lost some strength in at least one other category, and isn't that where we are?

A. I think so, but I would appreciate if you could do that for me again.

Q. I'm suggesting to you that in the three categories we looked at, regional costs, overall cost and off-site property value, the strength of preference for Site F has increased.

A. Yes.

Q. In the last two categories we looked at, the affordability category, it is no longer appropriate to give Site D a major advantage as an indication of preference.

A. We have no proference at all because we have a range that goes both ways.

Q. Exactly. In the last category, minor though it may be, the $200,000 difference for area municipal costs, there is no longer even the same degree of minor advantage for Site D as there was one year ago. Isn't that so?

A. It's a very minor preference we had which has all but disappeared.

Q. I'm suggesting to you, Mr. Watson, that bearing in mind the ranking of criteria which you told the Board you regard as being most important in doing an economic analysis, I suggest that Site F has the leading edge over Site D from an economic perspective. Isn't that so?

A. We were discussing municipal haul costs and the same would apply to private since it is a function of it and so that is minor. I had put in -- I put municipal distribution at the bottom of the list and that hasn't changed any. The only one we haven't spoken of is 1-C and I would just like to look at where we are on tipping fees.

Q. I'm talking collectively.

A. We can't talk collectively -- we talked about all the pieces and then I can talk collectively, but I am missing the one piece.

Q. Perhaps we can leave the matter there. I think the question answers itself. Thank you very much.

MR. LANCASTER: The Board has some questions.

DR. KINGHAM: Just a few things...

MR. GARROD: I'm sorry to interrupt, but I think Miss Nurvo indicated we probably would not have questions of this witness and with your permission there are a few minor areas that might take me ten or fifteen minutes that relate to the cost aspects as they affect my clients and their properties. With your permission I would appreciate the opportunity to ask those and can do them either before or after the Board's questions.

MR. LANCASTER: You will come before the Board. We will allow you.

MR. LEDERER: Could we have a break for the witness's sake because we have been at this for an hour and three-quarters.

MR. LANCASTER: That's true, I didn't realize that. I was so engrossed...

MS. CRONK: Thank you, thank you.

--- (Recess)

MR. LANCASTER: Please be seated. Mr. Garrod.

MR. GARROD: I thank you for the opportunity and I discussed my questions with Mr. Leitch and Mr. Lederer over the break and I am satisfied they have been covered and Ms. Cronk, I believe, has one more question she would like to ask, however.

MS. CRONK: It is a good news/bad news situation.

Q. Mr. Rinaldo, I didn't want to neglect you entirely, I have some questions for you. I would like you to assume that the principal vendor of Site F was prepared to take a purchase money back security arrangement for the purchase price of Site F. What effect would that have on your flexibility potential in financing in the Region?

MR. RINALDO: A. Obviously we wouldn't have to issue the traditional debentures which of course are financed on an up-front basis because they are financed over a ten-year period. We have asked for debenture authority up to fifteen years, but today's marketplace for municipal bonds would traditionally be financed over a ten-year period and obviously a purchase back arrangement without knowing the details would appear to provide some flexibility in financing and distributing the costs in a more flexible alternative.

Q. It would, depending on the type of arrangement that was negotiated, provide you with less of a need for the debenture financing you would put to the Board.

A. If that was the arrangement, we could in fact reduce our debenture requirements for that. However, I should point out that any kind of leaseback arrangement from the point of view of the Municipal Board views any lease arrangement as part of our debt quota, so it's still included, but we would not require an application to the Ontario Municipal Board for debenture authority in the same format we have made today.

Q. Assuming a reasonable rate of interest and a 25 year amortization period that flexibility would be assured, would it not?

A. To be frank I'm not sure

whether I would want to finance the thing over 25 years, you know, I would want to re-evaluate it and look at it and obviously I would look at all of these alternatives and look at which is in the best interests of the Region in terms of the method of financing, but that would give me another alternative to look at.

Q. I take it given the potential advantage on the debenture financing side of things, it is a scenario you would look at most closely.

A. I would look at any opportunity where it would in fact save the Region money if that was an alternative.

Q. This would be one of them.

A. It certainly would be one I would consider, certainly,if that were the case and if it were presented to the Region as an option.

MS. CRONK: Thank you. Those are my questions.

MR. LANCASTER: Thank you.

DR. KINGHAM: Now, we had a few questions for both of you. There has been some discussion about transfer stations in the course of your evidence, Mr. Watson, and you pointed out, I think when you discussed transfer stations, that if you didn't have to have them or didn't have to maintain them then there would be some savings. Should the Board assume there would be some comparable costs for consumers who presently use such transfer stations in that they would then have to haul their garbage longer distances?

MR. WATSON: In doing our costing, Dr. Kingham, we have assumed they would make that haul and there is not a transfer station. We have not worked with the present arrangement but with direct haul without a transfer station in doing the costing we have done for municipal and private haulers.

DR. KINGHAM: To put it the other way, if you built a transfer station would there be some savings for individuals who you anticipate now would be hauling?

MR. WATSON: A transfer station would increase costs and we deal with that on UP-16 and -- sorry, UP-17, the last part of the page, and we indicate there that if a small transfer station were constructed suitable for Halton Hills' requirements and we provide for the amortized capital cost and for the operating cost of that station and we provide for the cost of transfer haul from

Georgetown to the two sites in a large 20-tonne transfer vehicle and we compare that to what we have done which is to direct-haul, working with municipal haulage vehicle type sizes, there would be an increase in costs with the transfer station scenario of $1,700,000, and that is the present value of it. The reason for the increase in costs is simply because the haul distance isn't large enough and the quantity of waste isn't large enough to reduce the transfer haul costs down to a level where the savings in using the transfer vehicle work to overcome the cost of the alternative.

DR. KINGHAM: So the real effect of this is an expenditure for convenience of individuals throughout the Region closest to the transfer station.

MR. WATSON: Exactly.

DR. KINGHAM: And it has some bearing on the disappearing 5,000 tonnes we talked about with Mr. Rinaldo at some stage, that some waste might find its way to other places in the absence of transfer stations.

MR. WATSON: I would expect given the geographic location of Halton Hills, if there were no transfer station there there would be a tendency for some of that waste to move to other locations, but we are talking about even if it were 5,000 tonnes over and above whatever may conceivably be moving now, we are only talking about perhaps 2 per cent of the Region's total waste and it's not a major factor.

DR. KINGHAM: You make the same statement at the bottom of page 2-23 as you make at the bottom of 3-26 in H-45 and that is the statement about -- I will read the one on 2-23:

> "Therefore, although Site D is affordable the Region's ability to accept major enhancements to current landfill design cannot be assured."

And what did you mean at the time by "major enhancements"?

MR. WATSON: When I wrote that sentence, Dr. Kingham, I was thinking of the matters such as possible liners. The engineering work had indicated to us clearly that there was not a liner required at the site and obviously there was some discussion in other areas about it, and I was harkening back to the costing for liners that had been done in Stage 2C for Sites B and C or A and B and the total cost without present valuing was up around $20 million and the present valuing brought it back to I think just under $10 million. At this point we had no information as to what a liner would or would not cost,but we were simply sounding a warning that at some point you start to hit a limit and whether it is debt capacity -- you start pushing the tipping fees beyond reasonable levels and you start requiring too much money to finance particular programs. We just wanted to have a little caution there to say there were limits.

DR. KINGHAM: I would like to ask Mr. Rinaldo in light of his figure on page 6 of Exhibit H-280 where you show the impact of the landfill in terms of debt capacity, you now have figures for a liner at either site.

MR. RINALDO: Yes.

DR. KINGHAM: I'm wondering if the statement that appeared on pages 3-26 and 2-23 of H-45, the statement about major changes, if that is any longer applicable given the debt capacity and given what you have told us about the effect of a $5 million or $10 million increase in costs.

MR. RINALDO: Basically as I indicated earlier a $5 million increase in cost the Region, if it had to, obviously would be able to absorb it and would attempt to minimize its impact on its taxpayers by using alternative sources of financing. What I clearly said was that if the number escalates to $10 million, that is an area I haven't looked at closely and I would want to look at it much more closely in the context of what would happen, especially beyond 1993 when we have our capital budget as to 1993.

So, if in fact our cost estimates provided in here, if they are out and as a result of conditions this Board decides that those additional conditions which would increase additional costs to the tune of $5 million, I'm saying that the Region would probably absorb it without incurring any undue financial burden to the Region. However, when we start getting beyond that, I am not in a position to tell you what the impacts are and it may require some additional things we may have to do in relation to other services.

For example, last year when we had our significant increase in tipping fees, what we attempted to do was reduce our water and sewer rates down to about a 1½ per cent increase in order to help mitigate the impact of the 40 per cent increase in tipping fees we experienced in 1987. Likewise, we initially established a target date for the tax-supported component of our budget for a 6 per cent increase and we brought it back to 5½ per cent. These are some of the balancing acts a municipality goes through when it is faced with a big increase in one sector of its services it is providing. We obviously, and council would, I'm sure, do that and the cost of the landfill operation, if it was higher than what Mr. Watson has said in his report or if the debenture requirements are going to be in excess of the $12.75 million we have asked for, and those are some of the scenarios we go through in developing our budget and planning for the future when we formulate our requirements for the future.

DR. KINGHAM: You have a present value estimate for a liner at Site F.

MR. RINALDO: Yes.

DR. KINGHAM: The words you use on 3-26 about affordability you say are pretty close to the cutoff point and present valuing out around $5 million which is not a matter of overwhelming concern.

MR. RINALDO: There are two reasons.

It wasn't an up-front cost of $8 million in real dollars because it was being spread over the life of the site and therefore the amount you will have to finance, the debt charges were in the vicinity of $200,000 a year which is approximately a $1.00 per ton on an up-front basis. From that point of view it wasn't as significant as initially thought, especially when we get into the 2C stages where liners were being talked about in the context of $20 million and so on and so forth. So, to be honest, it is not as significant a concern as it was back in 2C and primarily for two reasons, firstly the up-front costs are not as high and the total costs are considerably different from what was talked about in 2C.

DR. KINGHAM: Thank you, Mr. Rinaldo.

Mr. Watson, I want to get hopefully a final perspective on this slate issue. On H-45A you had some table -- shale not slate, but you had some figures concerning the reserves in the licensed area versus those in Halton and those in Ontario. I would just like to get some perspective on that. If I look at H-45, in particular at page B-7 in H-45 I see a reference in the first paragraph to the current annual consumption of shale as being

710,000 cubic metres, and that is in the last sentence of the first paragraph on B-7.

MR. WATSON: Yes.

DR. KINGHAM: Does that relate to all of Ontario or just southern Ontario?

MR. WATSON: That figure was derived from the Ontario consumption of bricks factored up for other uses, drain tiles, chimney flues and so on. The brick figure is southern Ontario.

DR. KINGHAM: That is just southern Ontario. I guess what I am getting at is I would like to know if you have any estimate as to how many years worth of shale that is for Ontario consumption and how that affects the life of the reserve, the life of the resource in Ontario.

MR. WATSON: Okay. We would start off by wanting to factor up the 710,000 cubic metres to provide for Ontario as a whole and...

DR. KINGHAM: As I read your page 5 on Exhibit H-45A there are 7.5 million cubic metres of shale in the licensed area in Site F.

MR. WATSON: That was the figure provided to us by Hydrology Consultants.

DR. KINGHAM: We use about 710,000 cubic metres a year in southern Ontario.

MR. WATSON: Yes.

DR. KINGHAM: So that supply in the vicinity of Site F would last for 7.5 million divided by 710,000.

MR. WATSON: Yes.

DR. KINGHAM: Which is about 10.6 years.

MR. WATSON: Yes.

DR. KINGHAM: If we look at it in terms of the total amount of shale available in Ontario, would I be correct that that's about 631 million cubic metres actual available shale reserves?

MR. WATSON: 631 million cubic metres, yes, or 90 times approximately the amount of shale in question on Site F.

DR. KINGHAM: 90 times or 900?

MR. WATSON: Site F is 1.2 per cent of the provincial total approximately.

DR. KINGHAM: So are we then -- ah yes. So, we are shortening the actual lifetime supply of shale in Ontario from something of the order of 900 years to something in the order of 890 years.

MR. WATSON: That is what we are looking at and the difference between southern

Ontario and northern Ontario, and I don't have the figures at hand, but it is safe to say that the volume of brick-related construction activity in northern Ontario would not be 10 per cent of the total. It would be something less than that based on population.

DR. KINGHAM: Okay, I think we have a little perspective on that. It's a supply of something of the order of 890 years or something in the order of 890 years, depending upon whether or not you have the additional ten years.

MR. WATSON: Yes. That is working, as you say, with actual available shale reserves and the way that was defined with then the 50-kilometre -- sorry, 50 miles and 80-kilometre travel distance and if we move outside that radius, and we don't have to go very far in the case of types of shales being discussed, we would add another 365 million cubic metres to the supply which represents another half a millennium, give or take.

DR. KINGHAM: I think you have set it in perspective for us. One thing that appeared in both Tables 5 and 7 of H-44, and it sort of stuck out in those tables, but it is a figure for site development costs in 1991, and because it stands out so clearly I wonder if you could tell us why it's there. This is H-44, Table 5, relating to site plan area D and it has a single entry of $2,195,000 in 1991, and Table 7 for area F has a single entry of $1,877,000 in 1991, and I was surprised to see them leap out in the middle of the lifetime of both sites.

MR. WATSON: Just to review that, Table 5 for Site D.

DR. KINGHAM: Site development costs, 1991, a single entry.

MR. WATSON: $2,195,000 and in the case of F.

DR. KINGHAM: The same thing.

MR. WATSON: $1,877,000. I would have to go back and check, but I believe the explanation would be the way in which the earthwork costs were put into the calculation and I think in the case of H-44 when we had six sites and didn't have detailed design concepts and detailed costing that we made some simplified assumptions as to the time at which different work would be done and rather than spreading the costs somewhat arbitrarily over the period. We have simply dropped it in there as a satisfactory sort of mid-point in time on the understanding that there would be some spreading in fact, and we have done that spreading in H-45 where we had better information from Hydrology Consultants.

DR. KINGHAM: Okay. We have had a lot of discussion about the range of prices for property acquisition for both Site D and Site F. At Site D there are 12 parcels of land and evidently there could be a range on each and every one of them and thus a total range you would pay, and we understand that number. At Site F there is principally one owner for Site F.

MR. WATSON: Principally one owner being NSP owning the southern area and I'm not sure if it's two-thirds, but it's in that vicinity, with Azova Properties owning primarily the north section.

DR. KINGHAM: I think we understand clearly how you arrive at the $2.2 million lower end and we understand clearly how you arrive at the $6 million higher end and if we have understood your evidence correctly we would understand that the $6 million really applies to the quantity of waste that would be handled at that site more than it does to the intrinsic value of the land,so to speak. You base it on the number of tons and tipping fees and so on.

MR. WATSON: Yes.

DR. KINGHAM: It doesn't matter for your upper end how much of the dark blue area shown on H-278 is acquired as long as it is capable of holding the quantity of waste times the tipping fee which gives you that figure.

MR. WATSON: That is correct.

DR. KINGHAM: My question to you is in your best opinion if Site F was selected, where in that range would we expect to be and if it was selected for a landfill, would we expect that the price you are looking for up front is the high end of that range since that is the use to which the owner would presumably have been able to put it himself, or is it a true range I guess in terms of that?

MR. WATSON: I believe it is a true range and I tried to get at this yesterday I believe with Ms. Cronk. I think to my mind there is some uncertainty as to whether the property would necessarily be valued as a landfill in the way we have done it with the 20 per cent profit and the quantities of waste involved,and I don't know that that would necessarily would apply, and for that reason we would have shown a range, and I believe it is a true range, and if I had to select a figure it would be in the middle of the range and I have no basis for going to the top or the bottom. I think once again, you know, not being a lawyer, but looking at what the Expropriations Act says and looking at this situation, I would be in the middle of that range, yes.

DR. KINGHAM: When we talk about the resource recovery options, and you did define that for us and show us where to find what you meant by resource recovery, in calculating the value or the cost of resource recovery, did you subtract costs that would apply every ten, fifteen or twenty years as you would avoid having to go for approvals for alternatives like landfill, or did that figure into your equations when you were calculating the cost of resource recovery versus landfill?

MR. WATSON: Going back to Stage 1, Exhibit H-9, we had resource recovery...

DR. KINGHAM: You had about a 32 per cent disfavour for resource recovery.

MR. WATSON: Yes. On page 151.

The source of the figure on page 151 goes back to pages 133 and 134 where we talk about the difficulty of estimating and different projects. I don't believe that we explicitly made the allowance that you have just described. I think we looked simply at the estimated cost for two proposals and looked at the revenue offsets and the capital and operating costs and the anticipated provincial grants and talked about the risks, but I have no recollection and see no mention of any look at opportunity costs as you have described it.

DR. KINGHAM: Thank you for that. One of the other options considered is the energy from waste option and all along we have been assuming that that option would be brought into play in 1996 and that raises a couple of questions. Why 1996, first of all?

MR. WATSON: The discussion of 1996 I think takes us back initially to the evidence I gave in the spring. I think what we said at that time was that the Region had some preliminary exploration of energy from waste projects and it had, I guess it's fair to say, there were some setbacks in that area and we realized the difficulties involved and the complexities and, without retracting in any way from its intent, we has said we'll adopt a reasonable planning period and I think that period was to 1996, but Mr. Rinaldo will know more about it than I.

MR. RINALDO: Actually it did stem from the energy from waste study we did and once we completed that study we realized the setbacks we went through and we developed a planning process as to when we thought in fact we would be able to put one in place and in fact we estimated it would take us that period of time in terms of planning and going through the approvals process and the construction and the earliest we could reach that target would be 1996 by the time you take all of those factors into place. Based on that it was decided we would go on the basis of a 1996 target for the energy from waste facility or option as alluded to in our EFW evidence and also in our recent...

DR. KINGHAM: That was your best estimate of the earliest you could get it on stream, assuming approval which leads me to the question I have in this area. You have made an assumption of a landfill size, or the Region has, that depends on that energy from waste facility coming on stream about when you expect it to.

We would not, of course, want to prejudice any subsequent board into feeling that the approval that might be given by this Board to one site or another requires a concominant approval for an energy from waste facility. Are you factoring in in your calculation of total waste any allowance for the non-existence? Have you any contingencies for the non-existence of an energy from waste facility?

MR. WATSON: Yes, I think that that is obviously a good question and one that I endeavoured to get at back in June in the first part of my evidence. I had to address that at page 15, and I guess it stood on its own. It was page 15 of the series of handouts which I had and on that page I looked at -- the question was what if more or less than the anticipated 3.82 million tonnes of waste is available for landfill during the 20 years, and I said that for example if we get less waste to landfill, and I had gone through the high population forecast not met year after year and high waste per capita level not met, EFW or equivalent starting up earlier or consuming more waste per year than we provided for, source separation role understated, other unforeseen options playing a significant role, for example export. Now, in the interval we now have what I would call an unforeseen, an example of an unforeseen at that time, namely the trans-shipping of inert waste to Steetly in very substantial quantities, quantities approaching 10 per cent of the total waste of the Region. I think that that is a good example of something which I regard as an event potentially in lieu of an EFW. It is a diversion of waste from the quantity the Region is responsible for from a facility such as this one. There is no point in the Region spending $25 per tonne or whatever the cost may be, but in that neighbourhood, for that type of waste when it can effectively dispose of it at $15 or thereabouts elsewhere in a facility that is not scaled for the full range of municipal waste. I think the mandating of cardboard out of the waste stream is another example of those types of events.

DR. KINGHAM: In summary, your evidence is that even if there are delays in EFW you feel there is sufficient capacity and other ways of dealing with wastes such as resource recovery and trans-shipment to other sites for certain classes of wastes, that you feel the Region will not be under extraordinary pressure in terms of approvals on the energy from waste.

MR. WATSON: Yes, sir. I'm very clear on that point because I regard it as an important point and a point where we have to look at that possibility. That is why we have built in contingencies and, just to complete, if I may, page 15 which looked at these matters, what happens if we get less waste to landfill and the alternative was what if we get more waste to landfill than we are anticipating and population grows beyond the high growth scenario, a booming economy throughout the period and waste quantities are booming for several decades and we get delays or retrenchment in the EFW role or we get a levelling off in the source separation role. All of these or some varying mix could occur and I believe Mr. McQuaid and I discussed them at the time. We said at the time if less waste is going to landfill than anticipated,the Region will obviously have the ability to expend then the site beyond 20 years if it desires and if it doesn't wish to do so then it can decommission it with excess capacity. If more waste is coming than anticipated for these reasons, one of which would be a possible delay or retrenchment with EFW, the Region could seek to maintain the 20-year capacity by altering the site design, altering the boundaries, altering the waste compaction technique involving shredding and other means whereby the waste is landfilled at greater densities, and otherwise the potential site life could be reduced by several years depending upon the mix of variations and I said the consequence of a reduced site life would be that the cost per tonne of waste disposal would increase by a small percentage, and it would be a small percentage because most of the cost relates to haul and to operating the site itself.

Then, offsetting to a degree any negative impacts of that degree would be limited to a shorter time frame, but of course Halton would have to seek subsequent disposal facilities several years sooner. I calculated and went back and re-calculated the maximum amount of lifetime for the landfill that would be lost if there was no EFW whatsoever and if there was nothing to replace EFW, which I feel is highly unlikely. The EFW plant may occur in 1996 or it may be 1997 or some other year, but I believe that if it's not coming in 1996 there will most certainly be other factors that will be diverting waste from the landfill. In any event, as a sort of worst case scenario we made the calculation and established that I believe the evidence shows a maximum loss of 3.8 years and that would leave us with a design capacity of 16 years-plus on a worst case basis and that is assuming that the contingency evaporated and there was absolutely nothing replacing EFW and the factor such as the trans-shipping of the 10 per cent of the waste going on now did not exist. So, based on all of that, I felt we had an acceptable plan here.

DR. KINGHAM: Thank you.

Mr. Rinaldo, you have kindly provided us with some charts on how the costs vary over the years and those charts ought to show us what happens when EFW comes on stream, assuming it does in 1996. I'm referring to H-298 and in particular page 1 and page 3 of that exhibit. Do you have it?

MR. RINALDO: I seem to have misplaced it. Perhaps I could get a copy of it.

DR. KINGHAM: On page 1 of that exhibit where you show the revised site operating costs; if EFW did not come on stream, then the lines for Site D and Site F would continue on without bending downward around 1996 and 1997 and continuing up.

MR. RINALDO: I believe that would be correct but we haven't done the physical calculation,but I think the trend would continue to go in that fashion.

DR. KINGHAM: If one took the difference between where one would be say in 1997 without EFW and with EFW, one would have an idea of the per cent saved on operating costs.

MR. RINALDO: You would have a general idea,but in order to get the true saving you would have to do a physical calculation.

DR. KINGHAM: Which might be something like 25 per cent or so, but we need not discuss that now but we do need to look at page 3 of that where we now have site capital costs. I know in your earlier evidence you have tried an explanation for the strange shape of those costs, but I don't see anywhere in there any reduction because of energy from waste under the site capital costs, even though there should be a reduction I believe we established in your response to some questions from Mr. Lederer in that you would be handling some 63.5 per cent of the waste that would otherwise be handled if you didn't have an EFW facility. Can you enlighten the Board on why that is?

MR. RINALDO: First of all from the information we have from Trow, in fact the reason they do the work -- they redo the work every two years, the preparatory work every two to three years in order to provide for the site capacity for the next two to three year period. The flow they provided seems to provide that type of analysis and it goes from 97 to 99 and to 2,000 and my guess is, and this is only my opinion, but once we get beyond the EFW, my guess is that the timing would actually spread out a bit more than what we show here on the graph, but that is my own personal opinion and I would have to verify that with Trow because in fact the amount of flow of waste that would go to the landfill site would slow down.

DR. KINGHAM: Let me see if I understand that. You are suggesting that Figure 3 in this exhibit is not adjusted to assume EFW working.

MR. RINALDO: From a chart point

of view it does not appear to have that adjustment, and possibly the capital costs may be incurred instead of when you get after 1997-- instead of it occurring in '99 or the peak in 1988, 1998, that might be 1999 and the spread may be a bit wider at that point in time. That is my opinion of what I think would happen in actual fact.

As I indicated to the Board earlier, in fact what we would do in terms of financing those projects, we would even them out anyway from the point of view of minimizing the impact on the tipping fee so we don't have the roller coaster effect of these capital costs since they will be financed directly from tipping fees.

DR. KINGHAM: Thank you.

Mr. Watson, I wonder if you could answer a couple of questions with respect to H-277. As we understand your evidence, you assigned essentially no value to the remainder of the Wombat property and properties 9, 10, 11 and 12 and you stated your reasons for that with the regional municipality acquiring them as part of the overall package.

MR. WATSON: Yes. We obviously assigned a value to them in the acquisition and we included that value in the acquisition, but in terms of the fact that they were in excess of the Region's requirements for the designated site, we felt that they would in all likelihood be leased for agricultural purposes given the nature of the area and the revenue generated would be nominal.

DR. KINGHAM: I believe "nominal" was your word. It is a nominal factor in the acquisition and a nominal factor in possible use during the life of the site and I'm not entirely sure what you concluded as to the value of that property when the site was finished. Assume the site is closed and you now have the two parcels available for subsequent sale. Do they have any value in the year 2008?

MR. WATSON: Yes, they would. My evidence has been that the value of properties in the area would, following what I have called the decommissioning of the site and the after-use, the completion of the after-use, those values would return toward and approach their unimpacted value, the value they would have been at at that point in time in the absence of the facility.

DR. KINGHAM: So if at some stage the Regional Municipality of Halton sold those properties they would receive certain moneys for them and did you figure that in anywhere in your calculations of the overall economics between Site D and Site F?

MR. WATSON: We did not and one reason is simply that we are now moving perhaps 25 years or more into the future and discounting moneys received in the future at 10 per cent, -- a dollar received in the future or 25 years in the future is worth 11 cents today, and so the discounting procedure is such that a substantial amount of the value of the lands would be removed, first of all, and, secondly, we felt that we were starting to move -- when we start to move 20 and 25 years and beyond out into the future, there are a lot of different possibilities and we thought that to show a residual value, one could do it but we didn't think it was necessary.

DR. KINGHAM: What happens to real estate values in a populous region 25 years in the future?

MR. WATSON: Certainly that discount rate would be offset by the extent to which those property values may increase and in this area, depending upon the long-term growth plans for Milton and so on, one would expect values to go up,but I don't believe it would be reasonable to assume that for 25 years they would go up at 10 per cent.

DR. KINGHAM: Those factors notwithstanding you gave that value that the property acquired but not needed for the site a nominal value in all stages up front during the life of the site and after closure.

MR. WATSON: We did not make an allowance for post-closure. It would be possible to do so,but I suggest it wouldn't be a major factor.

MR. RINALDO: Just for the interests of the Board,I did a quick analysis of the net present value assuming inflation and a discount factor of 10 per cent and the nominal value seemed to be in the area of $60,000 and so it appears to be insignificant in terms -- it seems to substantiate what Mr. Watson is saying. It is a very nominal value bearing on the net present value basis.

DR. KINGHAM: Still dealing with those properties, Mr. Watson, I am glad you redrew the boundaries on H-277. As you now show them they suggest there is in total only 10 acres acquired from properties 9, 10, 11 and 12.

MR. WATSON: Correct.

DR. KINGHAM: That leads one to the question given the large area of unused land to the southeast in terms of actual landfill, whether your assessment would be that there would be some considerable economic savings with slight alterations to the overall site boundaries and corresponding alterations to the area actually to be landfilled.

MR. WATSON: There's no question about that and we faced similar situations with other landfill projects where the savings have been in the order of $20 million and $30 million at sites we have looked at. We are looking at a site which is in the middle of subdivision land and we are talking about major savings, but the situation there as with the situation here, of course the engineers require particular dimensions and certain elements of the site or certain areas of the site are unsuitable for landfilling itself, I believe this being the southeast corner, it being one, and we have the engineering assumption or direction that this width in the northern arm is required and it pushes us, as I mentioned, 74 metres into these properties. From an economic point of view, I would be much happier if we came down the border of the properties and didn't have a partial taking, but I am just costing what the engineers say they must have in order to make the facility function.

DR. KINGHAM: I wonder if you could turn briefly to page 11 of H-33, the Giffels report, if you have it there. Actually between pages 11 and 12, which is where the map occurs. Do you have the map?

MR. WATSON: Yes.

DR. KINGHAM: You have done a number of exhibits on the flip charts which we don't need to refer to but showing different zones of waste production and haulage times and so on, and there was a great deal of discussion about population growth anticipated to the year 2000 and beyond in which we saw the population of Oakville increasing dramatically and the population of Burlington increasing much less dramatically but still maintaining the lion's share of the population in the Region.

MR. WATSON: Yes.

DR. KINGHAM: With regard to that

map between pages 11 and 12 from H-33, if growth were to occur in either Burlington or Oakville, where would it occur in your opinion, in Zones 1, 2 or 3 in Burlington or Zones 4, 6 or 5 of Oakville?

MR. WATSON: There is no question as far as Oakville is concerned it would be primarily in Zones 4 and 6 and in Burlington -- I believe in Burlington it would be in the northerly portion of 2 and the southerly portion of 3.

DR. KINGHAM: So the increases in waste production, residential waste production at least, are going to be in those areas of Zones 2, 3 and 4 and 6.

MR. WATSON: Primarily. There will be significant growth elsewhere, but that will be the lion's share of it.

DR. KINGHAM: Does that affect your view as to hauling times and trip times and so on and the economies of the two sites?

MR. WATSON: We have done our analysis making adjustments in 1996 for different distributions in the different zones and I have done a couple of additional smaller analyses, and one was with Ms. Cronk and one with Mr. McQuaid.

DR. KINGHAM: It's those exhibits I was thinking of. I wanted to know if when you did those you assumed that the growth in Burlington, for instance, was a proportional growth in Zones 1, 2 and 3,and the same percentage applied,and similarly with Oakville, or whether you made internal adjustments so your calculations for waste haulage changed accordingly.

MR. WATSON: I would have to go back and verify it. It may be possible, and I'm not saying it is not possible to look at the zones in greater detail than we did and to have different assumptions about the amount of growth in each zone, but I am convinced on doing the analysis that, (a), since we are looking at growth and you have the base, the base being far and away what will generate the majority of the waste, the base being what is there now, the industry and the residences which are there now, they are going to account for the majority of the waste going into the new landfill and they are where they are, primarily in Zones 2 and 5.

Now, it may be possible with different shadings as new growth forecasts come forth to make slightly different assumptions about the number of people and the amount of waste to be accommodated in Zone 4 or Zone 6 or Zone 3, but I'm satisfied with all the runs we have done that that is not going to significantly affect the cost.

DR. KINGHAM: It is in your estimation relatively minor.

MR. WATSON: Yes, it is.

DR. KINGHAM: Turning your attention to Exhibits H-304 and H-312 which have to do with liner costs at Site F and Site D respectively, we have seen in H-312 if a liner were to be installed there it would be installed by excavation and re-compaction of on-site material at Site D.

MR. WATSON: At Site D.

DR. KINGHAM: Which is what H-312 tells us about. In H-304 the assumption was made that the liner would be imported.

MR. WATSON: Yes.

DR. KINGHAM: In the cross-examination with Ms. Cronk it was pointed out that it might not in fact be necessary to import the material for a liner at Site F and it may be possible to use material from the site.

MR. WATSON: Yes, and I think Mr. Hiraishi acknowledged that on page 3 of

Exhibit 304 and I think the main Trow report discussed that as well, yes.

DR. KINGHAM: My question on this is if that is the case that clay on site at Site F were to be used for the liner, we don't reduce the imported clay liner installation costs to zero, but rather we insert some value such as that used for Site D for excavation and recompaction of clay on Site F and can you help us with that at all?

MR. WATSON: I agree with the concept. The clay would clearly have to be excavated and it would have to be moved some distance on site and there would be a cost associated with it,but I'm sorry, I don't know what that cost would be.

DR. KINGHAM: One final question and it has to do with the process and we may get more from Mr. Walker on this later. I have followed through very carefully the change in costs for your haul cost scenarios as you went from stage 2A, 2B, 2C, technical studies and I think the Board understands that clearly, but we would like to understand the major factors as well that caused the changes at different steps. Perhaps we can start with page 9 of Tab 13 of H8B, your witness statement. On that witness statement you say that as of this stage of your assessment...

MR. WATSON: Which page?

DR. KINGHAM: Page 9, right at the top, and you have ranked Sites A, B and E as equivalent rankings first and Site F as ranking therefore a fourth in that order and you say in the third paragraph on that document:

> "The results of the economic analysis were used by the consulting team as input to the overall preferred site selection process."

I think we are with you on that, and then I would like you to move to H-44 and Roman numeral ii of H-44, just so we can follow this through, the executive summary, second page, Roman numeral ii.

MR. WATSON: Yes.

DR. KINGHAM: At the top you have the present value for the two sites, D and F shown as $50.9 million for Site D and $58.7 million for Site F and you repeat the ranking just as it was on page 9 of your witness statement and I would like you to explain the meaning of the sentence that follows that ranking in light of the sentence from your witness statement where your witness statement said:

> "The results of the economic analysis were used by the consulting team as input to the overall preferred site selection process."

And this document says:

> "An addendum on affordability was completed following the selection of Site F as the recommended site by the E.A. consulting team."

I guess my question is with regard to these two documents, what has happened between them where Site F has now become the recommended site when in your witness statement you point out that the results of your economic analysis were used as input to the overall preferred site selection process.

MR. WATSON: What happened, Dr. Kingham, was that we presented Mr. Walker and in effect the team with report H-44 accepting the affordability analysis which had not been done, and with the ranking you discussed of A, D and E being first and F as fourth and the other specialists did the same and Mr. Walker together with the other members of the team went through and did the analysis and on an overall basis determined that Site F was preferred and Site D was the runner-up, if you will, and then at that point I guess the consideration...

DR. KINGHAM: Before we move on to the next point, at this very point then your analysis shows a difference of something like $7.8 million in favour of Site D,if I have the mathematics right, or whatever the difference is between $58.7 and $50.9...

MR. WATSON: $7.8 million, yes.

DR. KINGHAM: Notwithstanding that, the decision was that at this stage F was the recommended site.

MR. WATSON: That is right.

DR. KINGHAM: Finally we move...

MR. WATSON: If I may, one reason for that is clearly the ranking that was employed overall analagous to the ranking I had here in terms of the level of importance of the different factors and of course we were at the bottom as number 4 and all the other factors were above.

DR. KINGHAM: We understand that and we understand we will get that from Mr. Walker when he deals with the overall. I wanted to take you from that to H-45, again the executive summary, pages i and ii and we have gone from 1985 to 1986 and the numbers have gone for Site D on little Roman numberal i from $50.9 million up to $62.9 million and for Site F from 58.7 up to 61.1 in the span of a little less than a year. That's a change for Site D, an increase of $12 million in the course of that period of time, and an increase for Site F of $2.4 million and I wonder if you can tell us in summary form what the principal factors are that saw that increase from your 1985 report to your 1986 report?

MR. WATSON: Well, in general terms clearly throughout the process as we move from 2A to 2B to 2C to the landfill technical to the update, every time we made that shift we were able to work with much more specific assumptions and most of the costs were coming from the engineers relative to the site design and costs and from the times that were being generated by Giffels Associates as far as haulage was concerned. Those two factors accounted for the majority of the costs. The assumptions about site value would probably be third. I guess another important assumption was the assumption about operating costs. As we moved from having six sites to look at and being able to look at them to a certain level of detail to having only two and having the engineers in a position where they could do much more detailed conceptual plans and costs and so on, there was a significant shift. To be quite honest, I didn't go back and audit in great detail every change. I was aware that the changes that were made would be explained and defended by the two or three primary specialists who made them. We tried to assure ourselves at each step that we had the best information at hand and, when we worked it all out that's what happened and we satisfied ourselves at the time that it was proper.

DR. KINGHAM: This Board is interested in the process of applying environmental assessment to landfill site selection and somewhere along the way, either working up to Stage 2C something significant or some things significant were missed that should not be missed in the future as one goes through the process of selecting sites, or something remarkable was found between Stage 2C and the technical studies which resulted in this leapfrogging effect of Site D moving from being $8 million less expensive to being a range of a few million dollars more expensive. I was wondering if you could put your finger on those items we should be mindful of.

MR. WATSON: I would like to be able to be more specific with you, Dr. Kingham, and I could be if I had a few hours to sit down and comb through it. I haven't done that. I think though that rather than it being something or even a couple of things, I think it's the working of dozens of factors in terms of assumptions about haul distances, and I think you can see from the exhibit I handed out a few hours ago that there were shifts, quite significant shifts in haul times throughout and I handed out from 2A to 2B to 2C and there were significant shifts. Some of those shifts were introduced by, for example, going to 2C, the removal of the 403 assumption and the difference in the Q.E.W. interchange assumption in Burlington. There were significant differences in speed assumptions that were made.

Now, those assumptions, I gather, rather than working with some ups and downs may have tended to go one way more than the other and something of that nature obviously happened in that we have a change of the magnitude you have mentioned. I think as far as the engineers went, they simply found on doing more detailed work that their earlier estimates had to be revised reasonably significantly. I know at the time, and we are now going back two and a half years ago, but being concerned about it and I know we discussed it and we probed them to ensure, as I say at each stage, to ensure that what we were getting was the best that could be obtained, but that's as far as we were able to take it in our coordinating role in pulling all of this input together and putting it in a financial analysis.

DR. KINGHAM: All right, thank you.

MR. LANCASTER: Thank you.

Mr. Lederer, re-examination?

MR. LEDERER: Yes, sir.

RE-EXAMINATION BY MR. LEDERER:

Q. Perhaps we could start with the last question Dr. Kingham has put to you and perhaps we could demonstrate one way in which we might see some of the distinctions which have occurred in the work done at 2C as compared to the work contained in the landfill technical stage. Could you get out H-44, your Phase 2 Stage 2C study and look at Table 1 which you will find opposite page 7-2 and at the same time could you put before you Exhibit H-45, your landfill technical study, pages 2-3 and 3-3. I realize it will be difficult to have all of that in front of you at once. Do you have those in front of you?

MR. WATSON: A. Yes.

Q. What is represented by Table 1 in Exhibit H-44?

A. Table 1 shows the site development costs.

Q. At what level of study?

A. This was at the 2C level where we had six sites and we were looking at them from that overview basis.

Q. Can we look at Tables 1 and 7, pages 2-3 and 3-3 in H-45,and could you indicate to me what that represents or what do those tables represent?

A. They represent similar cost figures but based upon the intervening year or two's work and focused, of course, on two sites rather than six,on a detailed analysis rather than the overview analysis of 2C.

Q. Since they are similar perhaps we could compare some of these costs just to show some of the distinctions. Could we look at first of all at Table 1 on H-44, Item 1, earthworks, and indicate to the Board the value you see for Site D?

A. The $934,000 for Site D...

Q. Let's stop at Site D. Let's go to 2-3, Table 1 of H-45, and can you indicate to the Board the value for earthworks as of the date of that work?

A. $1,525,000.

Q. Do you recall the nature of the additional information you had that might account for that particular change? If you don't recall, just say so.

A. I don't.

Q. Can we look at Site F and could you indicate to the Board looking at Table 1 of Exhibit H-44 the value for earthworks for Site F at the time at which that study was undertaken?

A. From Table 7?

Q. Table 1, Exhibit H-44.

A. $4,631,000.

Q. Can we turn to Table 7 on

page 3-3 and could you indicate the value for earthworks with respect to Site F at the time this was undertaken?

A. It was a decline of almost $3 million to $1,634,000.

Q. Can we do a similar kind of comparison with respect to Item 2, leachate collection systems, and at the time at which you undertook your Phase 2 Stage 2C work, what was the value for leachate collection at Site D?

A. $2,640,000.

Q. When you come to H45, the landfill technical phase, Table 1, what was the value for Site D?

A. It had fallen by $1.2 million to $1,443,000.

Q. Do you recall at this point the differing nature of the information you had at the landfill technical stage and if you don't recall please say so.

A. I don't.

Q. Can we do the same kind of calculation or the same kind of analysis with respect to Site F and could you tell me for leachate collection at the time at which you undertook your

Phase 2 Stage 2C study, what was the value for leachate collection at Site F?

A. $1,035,000.

Q. Can we go to Table 7, page 3-3 of H-45, and what at the time that work was undertaken was the value ascribed for leachate collection at Site F?

A. It increased by almost a half a million dollars to $1,513,000.

Q. Can you look at Item 11, the third and last one I will take you through and this would be rehabilitation, seeding only. Can you relate that figure to any of the headings found on Table 1 or Table 7 on H-45?

A. That would relate to Item 6, site closure and/or Item 10, after-use.

Q. Does it include both of those items in the total or is it some part of both?

A. On Table 1 in H-44 I don't see anything other than rehabilitation that would be directed towards site closure and after-use, so I believe it to be both.

Q. Can you give us the value for Site D -- it appears to be the same value for all sites and what was the value for Sites D and F for rehabilitation at the time when the Phase 2 Stage 2C work was undertaken?

A. It was $35,000 and at that point work simply had not been done to establish a viable rehabilitation program, a site-specific rehabilitation program,and so we made the assumption obviously at all six sites in the absence of that much more detailed work, whereas in H-45 we had the benefit of specific plans and in the case of Site D we have a site closure estimate of $3,250,000 plus $27,000 in after-use,so we had almost $3.3 million established as an appropriate cost for Site D compared to $35,000 in Stage 2C. In the case of Site F we had an even larger number, namely talking about in H-45 where we had $2,950,000 for site closure and in addition to that just under $1.6 million for after-use,so we had over $4.5 million in that case as compared to the simplified $35,000 assumption in 2C.

Q. Can we turn to another aspect of the questions of Dr. Kingham and could we turn to Exhibit 298 and perhaps I should speak to Mr. Rinaldo. This is the exhibit which contains the overheads you put before the Board on our direct examination. I'm not sure what I said,but

I meant 298. Dr. Kingham asked you questions about the impact of not having EFW come on stream in 1996 on this chart, page 1, and do you recall that?

MR. RINALDO: A. Yes.

Q. As I understood your answer you said you wouldn't expect to see the dip around 1997 but would see a more steady increase.

A. Without doing the analysis, that is basically what I said.

Q. Let's assume for the moment EFW does not come on stream but what happens is that some other form of diversion takes place, and both you and Mr. Watson have said if it's not EFW you expect some other form of diversion. If we had some other form of diversion, would you expect this chart to change from the way it appears in H-298?

A. No. The landfill component therefore would not change and assuming the same level of obviously waste diversion.

Q. Can we go to page 3 of the same exhibit and perhaps I had better address this first set of questions to Mr. Watson.

Mr. Watson, before looking specifically at page 3 of Exhibit 298, could you take out Exhibit 288 and look at the third page. That is the one that has on the front page estimated composition of regional contingencies exhibited in H-279 and I would like to refer to the third page and ask you to remind the Board what your present sinking fund calculation is with respect to Site D and as well Site F.

MR. WATSON: A. For Site D we have assumed an expenditure will be made in the year 2008 and in the years immediately following of $3,277,000 and that is in 1986 dollars and inflating that to 2008, it amounts to over $12.5 million. We have provided in our costs for a level annual amount sufficient to generate that amount of money in 2008 and that amount of money is $276,500 per annum invested at 8 per cent over the 20 years.

Q. For Site F. Perhaps you could give us the amount per annum.

A. $330,000 per annum and it's a higher amount because we have to generate a little over $4.5 million.

Q. At the risk of being redundant, does that number change from year to year?

A. No.

Q. Looking at page 3 of Exhibit

298, could you tell me is the sinking fund among the capital costs contained within this chart? I have no idea who is the right person to answer.

MR. RINALDO: A. My understanding is that the numbers are in it, yes.

Q. Am I right as well looking at the scale on the side that what we are looking at here is in millions of dollars and it goes from 400 to 500 to 600 to 700 thousand dollars up to $1.1 million.

A. The chart I prepared is on that basis.

Q. Mr. Watson, just generally looking at the scale of these costs up and down, can you tell me what percentage the sinking fund makes up of these costs? Let's take a low year and a high year.

MR. WATSON: A. The chart is a bit deceiving in the sense that the base is not zero but $400,000, but we have on average levels of about $600,000 or $700,000, and this is for Site D, and we indicated and the table is now gone, but we indicated I believe a sinking fund...

Q. $236,500 for Site D and $330,000 for Site F.

A. The sinking fund therefore makes up 40 per cent or thereabouts.

Q. Dr. Kingham asked a series of questions that related to changes one might expect to see in this chart if EFW came on stream. Do you recall that series of questions?

A. Yes.

Q. Somebody.

A. Yes.

Q. Can you indicate what impact the 40 per cent figure, the same number every year will have on the penchant for this chart to change with EFW coming on or not coming on stream? Do you understand?

A. The 40 per cent remains the same and the site closure and after-use costs remain the same and with EFW coming on it then represents a larger percentage of the total capital.

Q. Would it tend to broaden out or bring together or what impact would it have on the breadth or width one sees between the highs and lows, the horizontal?

A. It should narrow it.

Q. Thank you. So, it would counter-balance it, if I could put it this way, the impact that has been ascribed if EFW comes on stream?

A. Yes.

Q. Now, can we go back to the very beginning of the long series of cross-examinations that have taken place here and to Ms. Mansfield's questions. What I would like you to do is briefly take out Exhibit 45A, the updated shale work. Do you have that in front of you?

A. Yes.

Q. Do you recall that Ms. Mansfield examined you as to the conditions surrounding shale extraction and she suggested to you that if there was more shale purchased, assuming shale is extracted from Site F, but if there was more shale purchased than you predicted, that would indicate there was less risk to the Region in extracting it. Do you recall that series of questions?

A. Not specifically, no.

Q. This is going to make it tough for me!

MR. LEITCH: I do.

Q. Who said they do?

MR. WATSON: A. The longer I go, the less I recall.

Q. Can you look at Exhibit H-45A

and to that part of this exhibit in which you analyze the demand for shale. Do you recall that?

A. Yes.

Q. Could you indicate to the Board will the demands for shale, are they going to go up or down?

A. The demand in Ontario?

Q. The demand for shale extracted from Site F if that were to take place.

A. I indicated that the tendency in my view would be for it not to go up and for it to remain relatively level and conceivably go down. Now, whether it remains level or goes down is more a matter of export out of the province and those sorts of matters, but I related that to page 3 which clearly shows a decline in residential construction over the next several decades and what I view as an inescapable decline, demographically based, and therefore the demand for bricks relating directly to the increase in households and housing activity must to a degree mirror this.

Q. Okay. Can we then turn to Exhibit 205A, the report which Ms. Mansfield put to you and which was prepared I think -- I will have the name wrong-- for the Canadian Brick

Association.

DR. KINGHAM: Is that MNR281?

MR. LANCASTER: MNR282.

MR. WATSON: The older one.

MR. LEDERER: That's the wrong number. It's MNR281. I apologize.

Q. Do you have that in front of you?

MR. WATSON: A. The 1978 report?

Q. Yes.

A. Yes.

Q. Do you recall Ms. Mansfield asked you some questions regarding the predicted rate of growth in the shale market as demonstrated by that report which was 3 per cent growth per year and I think you indicated in your evidence that that was not realistic because there had not been any increase for the preceding 12 years and do you recall that question and those answers?

A. I do.

Q. Can you indicate to us, if you know, what is the Clay Brick Association of Canada?

A. I don't know them intimately, but...

Q. I wasn't going to get into the

quality of your relationship.

A. I presume it is a representative group of the industry, i.e. a lobby group of some sort -- not in the pejorative,but it's a spokes-group for the industry.

Q. Assuming that to be the case, what interest would you expect them to have in the market for shale?

A. There is no question that I think that in this report we are discussing, and in fact the MNR report, have an interest in protecting the industry and playing up its prospects and encouraging its prospects and they would tend to be bullish and possibly to a degree would look at things through rose-coloured glasses, but that's all fair enough. They will get nowhere by being negative,but I am trying to look at it realistically.

Q. Can you indicate to us what year that report was prepared?

A. 1978, in July.

Q. Can you tell us have the economic conditions in the market affecting this market for shale changed since that time?

A. Yes.

Q. How?

A. Well, on going back to H-45A, page 3, and obviously during the '70s we were just completing a very substantial growth in households, a very high level of growth for a decade and we were housing the baby boom and we are now in a different decade with different prospects, less or lower prospects.

Q. Thank you, sir. Now, can we move on to those questions asked by Mr. McQuaid and could we start with Exhibit 284, the overview of the economic component of the landfill site comparisons? Just while Mr. Watson is getting this ready, I think what we would like to do is take this down into a size which everyone can work with because as you can appreciate the way it was done, it is a bit awkward, but I would like Mr. Watson to take it away from the hearing room and have it done in a form which we can copy for everyone on a legal-sized sheet of paper, whatever the appropriate size is. The unusual thing is to take it out of the hearing room, but with your permission we would like to do that.

MR. LANCASTER: Yes.

MR. McQUAID: As long as it is clearly understood it cannot be changed.

MR. LEDERER: It will be the same and I will instruct him to draw the lines precisely as he is shown them and not the way he might choose to clarify them.

MR. LANCASTER: It might be it will be just harder to read than it is now.

MR. WATSON: No offense, Mr. Chairman, to Mr. McQuaid,but there is nothing to change.

MR. McQUAID: It's just that sometimes witnesses think the arrows, if he could fix it up, but Mr. Lederer was taking it and if he was taking it away and reducing it there would be no caution,but sometimes witnesses don't realize that the exhibit should come back exactly the same as it went and that includes this staff as well as everyone else. It's just a note of caution, that is all.

MR. LEDERER: I'm in the Board's hands and I appreciate the Board's concern.

MR. LANCASTER: You may. It certainly would be helpful.

MR. LEDERER: Could I just have a moment, Mr. Chairman.

Q. Mr. Watson, at the outset of Mr. McQuaid's questions concerning this document, you indicated to him that you would like an opportunity to put the matter in context and I think he quite fairly preferred to go through it as he thought best from his position. I would like to give you that opportunity and I would like you to take this from the beginning to the end rather than from the end to the beginning,and don't spend a lot of time as we have heard much about it,but take us through the process starting with waste quantities through to the last box, landfill -- I'm sorry, I can't read that.

A. The evaluation criteria is overall conclusion.

Q. Waste quantities to overall conclusions.

A. All right.

MR. McQUAID: Mr. Chairman, I hesitate at this point but this is an open-ended question which basically says would you repeat your evidence. I have heard quite a bit of questions, leading questions being put to this witness in reply and I have restrained myself,but I went through every box on this exhibit and I gave the witness an opportunity to explain it and I don't see why Mr. Lederer in reply has to get up and say would you start all over and repeat the evidence. It doesn't seem appropriate reply evidence nor at this point in time does it seem to be very efficient.

MR. LEDERER: First of all, sir, I resist the suggestion I have led this witness at all and I don't think I have, but secondly the witness specifically said to Mr. McQuaid "I want to put it in context," and Mr. McQuaid had the opportunity to ask the witness this question and cross-examine on it if he chose to do so. It was clearly before this Board and it is perfectly proper reply and that is what reply is, my opportunity to give the witness a chance to go further if he has indicated a desire to do so and if he has. Had he not said that,I might be in a different position, although I don't think so. He clearly asked for that opportunity and he has a right to put his evidence in, not as Mr. McQuaid wants to do it, which is what cross-examination is about, but as the witness chooses to do it and it is entirely proper.

MR. LANCASTER: Do you have anything you wish to add to the evidence you previously gave on that, Mr. Watson?

MR. WATSON: I would not be adding

anything but just organizing what was said. We were hopping around quite a bit but I have nothing to add.

MR. LANCASTER: That is fine, you may do so.

MR. LEDERER: Thank you, sir.

MR. WATSON: Well, we have this organized as you are aware in a number of modules with waste quantities being the first, and I will come back quickly through that,but then we lead to three types of costs, operating costs for the landfill facility, capital costs and the haul costs -- actually four costs with the fourth being potential off-site property value impact,and all of those feeding into the eight or nine evaluation criteria we looked at and the weighting and the overall conclusions.

To come back quickly to each module, waste quantities where we are moving from forecasts of population and forecasts of employment and working through waste per capita forecasts and establishing total waste within the Region, reducing from the landfill requirement the amount to be redirected to EFW, to source separation and other areas, adding back to the total contingencies in the event we have higher populations than forecast and in the event we have a higher waste per capita ratio than forecast and also adding back a contingency for downtime for the EFW project and also adding back non-combustible wastes and ash which would emanate from the EFW portion of the waste processing. That gives us the important box total landfill waste tonnage by year and adding to the, I believe, 4.2 million tonnes we have for the 28-year period and this being disaggregated by the municipality and in later stages by waste zones and that calculation arising from the disaggregated population forecast and the employment forecast and the related material. We then feed the total landfill tonnage by year into the operating costs box and into the capital cost module and it also is fed into the haul cost module after being disaggregated, as I mentioned, by waste zone.

The operating costs portion is relatively simple. We are taking several categories, standard landfill operations, the treatment and trucking and removal of the leachate and then the matter of contingencies and administration allowances and so on, and we are inflating them to current dollars in the various years in which we expect to incur them and then discounting those cash flow items back to our present value.

Similarly with capital costs, we are taking the total landfill requirement, calculating from that the site area requirement and from that deriving a conceptual design for a landfill to accommodate the 4.2 million tonnes. We are looking at the costs in terms of initial site preparation costs because they relate to debenture requirements and Ontario Municipal Board capacity and the Region's ability to fund those amounts of money together with the other work it has to do. We are looking at subsequent year costs, contingency costs and site purchase and real estate contingencies. We are inflating those and financing them from capital out of current, and that is to say from the in-flow of the tipping fee revenues, and we are showing how those moneys would be financed over time. We just discussed the closure and after-use costs which we are financing through a specific sinking fund provision so the Region is sure that at the end of the period the necessary millions of dollars are there to do the work set out. Then we are discounting those amounts back to the present value.

With the haul costs we have developed

travel times and travel distances from all the waste zones and Giffels Associates have done this and we have been working with them,but to develop those times and distances and then we split the haul costs between those which are variable by time and those which are more variable by distance.

MR. LEDERER: Q. Boxes 26 and 27.

MR. WATSON: A. 26 and 27, and time-related costs being labour and capital, the purchase of the vehicles and the drivers and distance-related costs being gas and maintenance. Then we have calculated haul costs per year and we have increased those costs to allow for overhead related to putting the trucks on the road and also to provide for what we refer to as the minor haulers, those not driving the large waste removal trucks but those many thousands of vehicles who come and use the landfill, and then we have inflated those costs and discounted them to present value.

Q. Boxes 28, 29, 30 and 31.

A. Yes. We have taken those costs and allocated them between what we are calling municipal haul, the four-area municipalities and the waste they remove with their vehicles or vehicles acting on their behalf in the case of

Burlington, and the commercial haulers which are dealing with the waste of apartments and industry and many of the rural properties and the small haulers. We have then further disaggregated the municipal haul amongst the four area municipalities. On the off-site property value impact we looked at the land use in the immediate vicinity of the two sites and we have estimated the potential impact area involved and the value of the lands in those areas and we have looked at the range of possible impacts that a landfill operation of this type and this size and this duration could be expected to have upon those properties and we have endeavoured to look at both the positive, the few potentially positive impacts, and the other impacts which are in the main negative. We have further differentiated those costs into potential private sector impacts to be incurred by those resident in that area and, in addition as part of that calculation we have developed a regional real estate contingency which is a look at the costs the Region can expect to incur in dealing with the situation created here off-site.

Q. That takes us to boxes 36, 37, 38, 39 and 40.

A. Yes. All of that brings us to the final module, the evaluation part of the process where we have eight separate factors, the same factors set out in the comparative analysis, and a ninth we added for other considerations because throughout the process we had several other considerations we were looking at and in the final analysis they proved not to be significant.

We then established the information for those different factors and we then looked at the strength of the preference in each case and the importance of each of the factors. The importance of the factors we have on H-297 in the order moving from the top, 1 through 4, and we have considered those ranking importances and then we also considered the strength of the preference, which is to say the difference between D and F and F and D in each particular case, whether it was a small percentage or a small amount of money or a larger amount. We then with those two considerations in mind drew our overall conclusion, our overall conclusion being in the landfill technical report and in the comparative report that overall the two sites are quite evenly matched in economic terms and a clear preference does not exist based on the information currently at hand.

Now, we updated that work as fully as we could and presented that in the form of the UP exhibit which is Exhibit 286, UP-15, and there have been some additional potential modifications discussed over the last week or two and that brings me back to the conclusion I just gave to you from the comparative analysis, that overall the two sites are evenly matched in economic terms and a clear preference does not exist. That is and remains my conclusion.

Q. At some point over the course of Mr. McQuaid's questions concerning this chart you said you don't believe you could put something like this together and this is the quote, that "...it just works out in the end." Do you recall saying that?

A. I said that to Mr. McQuaid? In answer to?

Q. That I don't recall. You don't believe you could put together a model where it just works out?

A. Oh, yes, I see.

Q. What did you mean by that?

A. Well, frankly I'm a little

suspicious of a model in the sense of a great big computer model where everything is fed in and an answer pops out at the end. We certainly could have done this and it is appropriate for some situations and we develop models, financial models of 20, 30 or 40 pages that go through financial forecasts and municipal operations and so on, but I think that this is something that has to be looked at area by area. There are matters of judgment that have to be considered and explained. We have certainly gone and computerized different modules of this and I think that the way to do it is how we have done it, to try and deal with each of these in turn. That is all I was getting at and I don't think it was a major problem.

Q. If you were to do this by way of a computerized model, what would be missing in relation to the process you have used?

A. If you attempt to do it all by a computerized model, then you will be putting in numbers and weights here and you are going to be missing the analysis and the judgment, the trading off that I think must be carried out here in order to arrive at that conclusion. You can certainly take the computerization we have done on all these things and string it all together and I suppose you could make it into one large model but, as I say, I think it's better to deal with it in pieces as we have.

Q. Could you read the title of this exhibit, H-284?

A. "Overview of Economic Component of Landfill Site Comparison Portion of Halton Region Landfill Environmental Assessment."

Q. What level of study or what part of the process are we talking about here?

A. This deals with the last -- primarily with the last two or three years. It is dealing with the comparison of a number of sites or site plan areas. It does not deal with the earlier half which was related to generic waste disposal alternatives and is related to a consideration of the Region as a whole in terms of finding potential sites.

Q. Does it deal with the work found in H-44?

A. H-44 is 2C and it focused on H-45, but in H-44 we were doing all of these things but not in the same level of detail as we did in H-45, in the update, but yes.

Q. Thank you. Mr.McQuaid also asked you whether you were an appraiser and you offered to review your qualifications in assessing land value. Do you recall that?

A. Yes.

Q. Would you do that for us now; what are your qualifications as a land economist?

A. I had a one-page addendum to the qualifications I provided last spring.

Q. When did you prepare this?

A. I prepared this a week or so ago.

MR. McQUAID: Why is this going in now?

MR. LEDERER: Because again Mr. Watson asked for the opportunity to do it and you had the opportunity to ask questions and deal with it.

MR. McQUAID: Is that how it works? I didn't test...

MR. LANCASTER: The Board would want this in any event, in its evaluation.

MR. McQUAID: I asked him if he was an appraiser and I did not ask him if he was an economist and the record is clear in terms of his ability to give appraisal evidence.

MR. LEDERER: He offered to review his qualifications on assessing land values and I want to give him an opportunity.

MR. LANCASTER: The Board would want some background to the evaluation before it. H-314.

--- EXHIBIT NO. H-314: Document entitled "Qualifications and Experience Related to Real Estate Economics and Property Valuation" - Cameron N. Watson

MR. LEDERER: Q. To be absolutely clear and to dissuade some of Mr. McQuaid's concerns, did you prepare this before or after you started to give evidence here?

MR. WATSON: A. To be honest I don't remember when I prepared it. It was a week or so and I guess I have been here for two weeks. It was around -- I don't know. It wasn't this week,but maybe last week or the week before.

Q. What does it tell us?

A. I was going to start -- well, all right, as far as background I mentioned the Bachelor of Commerce degree at M.B.A., a member of the Institute of Management Consultants, but for these purposes more importantly for 15 years I have been a member of the Association of Ontario Land Economists and that association is one where the members, to quote the material from the Association, "provide professional advice and services relating to the economics and the use of real property. Among their numbers are those involved in land administration, real property management, land use planning control, real property development, taxation evaluation, financing and research. It provides a common and broadly acknowledged identity of professional status for practitioners in these fields and represents itself in the Province of Ontario as being of those who are of the profession of land." And it requires five years approved experience in land economy, prescribed examination or experience in lieu, such approved experience shall include expressions of opinions professionally as the economics and the use of real property for a fee or as a salaried official or employee and it may also include services rendered in connection with the administration or management or evaluation, alienation, development, financing or research of real property.

The work I have been involved with over those 15 years in the area of real property and real estate is summarized here and I mention the considerable amount of work working with assessment specialists and assessment estimates, giving testimony before the Ontario Municipal Board for 10 years in matters of assessment estimates for major projects and including the Scotia Plaza development, Water Park Place, the Regional Shopping Mall in Etobicoke, the Woodbine Centre, the Regional Shopping Mall in Owen Sound and the City Centre in Brantford and Consumers Gas LNG plant, the mines in Eliott Lake, the Stelco complex in Haldimand-Norfolk and housing developments in various parts of Ontario.

In addition, our firm was selected nationally through a national competition to undertake an assessment of the property assessment system and the property taxation system for the Government of the Northwest Territories and we have done related work in that area for the Department of Indian and Northern Affairs.

I have done numerous market assessment studies applying principles of real estate economics and these underlying land values, industrial market studies in places such as Mississauga, Brampton, Burlington, Richmond Hill, residential studies in Toronto, Markham and elsewhere, retail market studies in Woodbridge. I have done numerous site selection studies, property evaluation of alternative land use scenarios for industrial firms and a number of studies for the Ministry of Government Services. I was part of the team that looked at the value and the disposition of the Ministry of Government Services lands, the land banks in Haldimand Norfolk, the two major land banks, a financial assessment recently of alternative property valuations for a redevelopment project in Hamilton.

Then, in the area of landfill I have been working on this type of work of off-site property impact and site values and related matters for a year and a half in the Region of Peel and for approximately that amount of time relative to the Ontario Waste Management project and for several other smaller projects mentioned.

So over the last 10 or 15 years I have had quite a bit of experience in property value related matters and have given evidence.

Q. Can we turn to H-277, the Site D land use map. Could you put that up please. Mr. McQuaid asked you a series of questions concerning what was to be taken and the impact of what was taken and what wasn't taken,and do you recall that series of questions?

A. Yes.

Q. Can we go to Exhibit 276 to UP-15 and to what has been described as bullet one under Site D.

A. Yes.

Q. "Property acquisition costs updated from $2.62 million in 1986(dollars)to $3.0 - 3.65 million in 1987."

And do you see that?

A. Yes.

Q. Can we look at the lands in the northeast quadrant of the square outlined in red and can we assume for the moment or suppose that only what was called here I think by Mr. McQuaid, and I apologize if I'm incorrect, but if only the stubs were taken, are you able to tell us what impact that would have on your calculation of bullet one?

A. We have a situation where there is a partial taking for parcels 9, 10, 11 and 12 and the partial taking approximately 10 acres in total?

Q. Yes.

A. Then we go to the Expropriations Act...

Q. I want to look at the one bullet for the moment, the property acquisition costs. What would happen to that number?

A. To know that we have to go to the Expropriations Act because we are expropriating and this is a partial taking. The Act says where a statutory authority acquires part of the land of an owner, the reduction in market value thereby caused to the remaining land of the owner by the acquisition or by the construction of the works thereon or by the use of the works thereon or any combination of them, and that is first of all, and, secondly, such personal and business damages resulting from the construction or the use or both of the works as the statutory authority would be liable for if the construction or use were not under the authority of a statute.

So, in the first instance we have whatever value would be ascribed to the 10 acres and we then go back to the Blackstock principles and the Supreme Court of Canada decision and so on which clearly indicates that the value would not be pro rata but higher than pro rata for the stubs. We then go to the clause I just read in terms of the reduction in the value of the remaining parcels which would result in the construction and use of this landfill. There is no question that those properties in a rural setting, the value of those properties would be significantly impacted if a landfill were put in place where they were then butting against cells and having truck traffic going by them.

Now, whether that was a matter of 30 per cent or 40 per cent, it is some such amount. I would think that at least 50 per cent of the value, if not more, of those properties would come under that category.

Personal and business damage, equivalent reinstatement and other matters would add to that cost. In other instances we have estimated 15 per cent for those matters and, in addition to that there is the cost of surveying and lawyers and so forth, so that is to say the costs associated with the owners that the Region would be bearing, and that might be 20 per cent of the total.

Q. Looking at bullet one, does

that deal with in any way injurious affection or claims for injurious affection?

A. UP-15, bullet one?

Q. Yes.

A. No. That's a different situation where we are buying the entire property and you now have a situation you posited where we are not buying the entire property but only the stub ends.

Q. What I'm asking is what impact with respect to property acquisition costs or what you have allotted for property acquisition costs in bullet one will that have, the acquiring of a smaller piece of property.

A. I am saying that the Region in my view would have to expend in excess of 50 per cent of the value of the entirety in order to get the stub end. Now, I am saying that because the stub end is worth at minimum 10 per cent and I think with the principles I have spoken of it would be valued at more than that and we then have 15 per cent for equivalent reinstatement and the other matter, the disturbance allowance, and that is 20 per cent so that is 35 per cent and we then have expenditures for disbursements, legal and realtor and so on which would add something, and we then have the response to Section 14 of the Expropriations Act which talks about the reduction in values here, and I think that that would perhaps be 30 per cent and possibly more.

So, now we are up to 60 to 70 per cent of the value of the total for the cost of that little stub.

DR. KINGHAM: I just want to be sure I have understood what you have said. You say then to an individual property owner there who has, let's say, has 35 acres or whatever, we are either going to expropriate you in entirety for the cost of X or we are going to take two and a half acres. You are saying -- you can stay on the remaining 35 acres but we want two and a half acres. You say it will cost 60 to 70 per cent as much to get those two and a half acres and leave the resident where he is as it would cost to take the whole thing.

MR. WATSON: I must confess that when we faced this situation in another locality a year or so ago I found it just as surprising, but we have worked it through and double-checked it and so on and yes, that is what I am saying.

DR. KINGHAM: I want to be sure.

MR. RINALDO: If I may add to that, I asked the same question, me being the treasurer trying to cut costs, because I saw we were taking a small portion and I asked for our Property Management Department and the Legal Department and I was told by them that it would cost us as much to buy that little piece land than if we expropriated -- or more, and that is what I was told by them. So, in fact they said that if we tried to buy just a small piece it would cost us more and that's exactly what they told me because I asked the same question you asked.

MR. LEDERER: Q. You would spend more to get less. Now, would this have any impact on bullet five, the potential off-site property value impact?

MR. WATSON: A. If we just take the stub, then the owners are left as they are with 90 per cent or so of their land. Injurious affection has already covered -- the calculation I have made already covers them and I didn't have them in in the other calculation because they were part of the site so there is no change.

Q. The injurious affection with respect to those you have accounted for as part of the property acquisition cost in that scenario.

A. In the scenario you just put to me the injurious affection is embraced in the property acquisition costs and I'm sorry, but when you talk about injurious affection off-site, and I was talking about the fact that it may or may not come to pass,but clearly under the Expropriations Act with a partial taking it will come to pass and that is clear.

Q. Again it is what percentage you have shown of what is under bullet one so I can have that clear?

A. Bullet one on UP-15? I believe the cost of the stubs would be in the order of 60 per cent— 60 to 70 per cent.

Q. Including the injurious affection portion?

A. Yes.

Q. Mr. McQuaid, looking at UP-2, Mr. McQuaid -- you may have answered this,but let me be sure. Mr. McQuaid asked you a series of questions and pointed out that your basis of assessment was that the first 10 acres was worth $150,000 and each additional acre was worth $2,000. Do you recall that?

A. Yes.

Q. He suggested the stubs therefore were worth $2,000 an acre.

A. Yes.

Q. Are these stub portions worth the same amount separated from the remainder as they are as part of the remainder?

A. No. If they are separated they are a building lot and their value increases dramatically.

Q. Can we leave the northeast quadrant and look at the Wombat property for a moment. Supposing for the moment that the Wombat property, that part of it which extends to the south of the site is not taken. Could you indicate what impact that would have on bullet one on UP-15 of Exhibit -- I guess it's 276 and 279?

A. UP-15 in 286?

Q. 86.

A. You don't take it therefore you are going to sever it and have in effect a land-locked 25-acre parcel. I believe Mr. Rinaldo -- we were discussing it and he indicated there would be two potential buyers, this property or this property (indicating), and when the marketplace shrinks from several thousand prospects to two, then the value I think would shrink proportionately. It's like trying to sell people an extension to their back yard and things of that nature. You won't generate much revenue from it.

Q. What impact, if any, would that have on bullet one under Site D, property acquisition costs?

A. There would be a very small amount of revenue generated potentially if that property were sold rather than being rented to those landowners. If it were rented it wouldn't change the calculation at all.

MR. LEDERER: Ms. Cronk pointed to me that we have the entire planning profession in this room and I think it's safe to assume that we won't get to Mr. Walker today and I wonder if we might advise everyone of that so they don't feel a need to stay.

MR. LANCASTER: I wondered how long you wanted us to stay tonight.

MR. LEDERER: It's my turn. I think at this rate I'll be a while yet.

MR. LANCASTER: A while?

MR. LEDERER: I beg your pardon?

MR. LANCASTER: You will be a while.

MR. LEDERER: I don't want to make the same mistake Ms. Cronk made and say I will be twenty minutes and then be forty-five.

MS. CRONK: Yesterday you told me you had no re-examination and if you want to place money on it I'm still ahead.

MR. LEDERER: It would appear from the speed at which I'm going through this I would say I'll be a while yet. I don't even want to say I'm so bad at estimates.

MS. CRONK: I'm sorry, but I obviously wanted to raise this matter because we have a great number of experts here and if the Board were inclined to sit tonight to finish the re-examination I wonder if I could presume to suggest we take a very short five-minute break so we could speak to our experts very briefly and then reconvene to hear the balance?

MR. LANCASTER: That's what I had in mind except I don't like sitting much beyond 4:30 myself and I'm wondering if you are going to be that much longer.

MR. LEDERER: I'll be longer than twenty minutes.

MR. LANCASTER: I think we'll

adjourn for the night now then and carry on with your cross-examination tomorrow.

MR. LEDERER: Mr. McQuaid might like to hear it called cross-examination, but I do not, sir.

MR. McQUAID: It's on the record now, Tom.

MR. LANCASTER: It's too bad we couldn't get to Mr. Walker today, but this is not the first time it's happened.

MR. LEDERER: I'm sure Mr. Walker will grin and bear it.

MR. LANCASTER: 9:30 tomorrow morning.

--- Adjournment (4:25 p.m.)

****

CERTIFIED CORRECT

Colin F. Nethercut, C.V.R.

(Page 13600 follows)