APPENDIX J THE LONGER TERM OUTLOOK

## APPENDIX J – THE LONGER TERM OUTLOOK

This appendix explores the longer term financial implications of selecting among the five transfer station packages. The key issue here is the trade-off between spending more on capital in the short run, or spending less but having more exposure to inflation and other unknown pressures on variable costs over the next four decades.

To better understand the effect of time on the cost profiles of the different packages, a brief cost-oriented review of each can be helpful.

On a per-ton basis the five options look quite different. Package 1 closes three existing sites and builds four new ones, each handling substantial tonnage. The financial impact of this larger volume is especially noteworthy at Bow Lake, which would bring in all of Renton's activity:



Package 2 makes Houghton a self-haul facility, and NE Lake Washington converts to commercial-only status:



Package 2A also shifts Bow Lake to commercial-only, and keeps Renton as a self-haul facility:



Total Cost per ton Thru 2048

Package 3 is interestingly different on a per-ton basis, as it utilizes Renton, Houghton and Factoria as self-haul operations. With the smaller tonnage involved in these locations the resulting costs are noteworthy:



Total Cost per ton Thru 2048

Package 4 builds only one new facility, at Eastgate, and divides the other operations into strictly self-haul or commercial only, with the expected cost per ton disparities:



Although having a uniform cost per ton across all facilities is not a performance criterion, these graphs suggest the substantial operating cost differences among the various stations, within the different packages.

On a per-ton basis the total cost of each package through 2048 also shows some variation, largely due to the varying impacts of inflation on the cost of labor:



A total costs perspective shows the same relationship among the options.



Total Cash Flow Thru 2048 by Package

The incremental costs here beyond Package 1 are noteworthy:



Incremental Cash Costs vs Package 1 - Thru 2048

Of course if inflation were to be greater than the 3% employed here these differences beyond option 1 would be greater.

Since packages 1 and 4 involve respectively the most and least amount of initial capital investment, comparing the two over time is of some interest. At a 3% inflation rate the labor cost for the two alternatives diverges, and the dotted line below shows the difference in annual labor costs, other things equal, which approaches \$2 million per year about the time Cedar Hills is currently expected to close:



Labor Costs - Pkgs 1 and 4 with 3% Inflation

With inflation at 6% per year these differences, and the associated risks, become more pronounced. In this case the gap is easily \$2 million per year by 2016, and increasing significantly.



With this rate of annual price increase the labor bill differential approaches a noteworthy \$10 million per year later in the horizon:

To better compare the previous two graphs, the figure below compares the impact of the two inflation rates on the difference in cost increases between Package 4 and Package 1. While in the very early years the patterns are about the same, the higher operating costs of Package 4 under a 6% inflation scenario become evident soon after Cedar Hills is scheduled to close.



Staffing Costs - Package 4 minus Package 1

Inflation at 6% — Inflation at 3%

The following two graphs explore this labor cost difference for the period taken as a whole. First the gap at 3% inflation, totaling about \$88 million:



With 6% inflation this total labor cost difference between the two options widens to \$209 million:





For a slightly different perspective the graph below shows the inflation effect on each option separately. The cost of Package 1 rises by \$469 million if inflation is 6% each year, compared to 3%, while the corresponding risk exposure increase for Package 4 is \$589 million.



■ Infltn = 3% ■ Infltn = 6% ■ Infltn Risk 6% v 3%

However, this \$120 million lower risk with Package 1 requires extra capital invested in the early years. This trade-off between more capital and less risk of labor cost inflation is shown in the next graph:



The extra capital cost for Package 1 is \$44 million. However, with 3% inflation the consequent labor costs are \$88 million less than in Package 4. If inflation were to average 6%, the capital cost would be largely unchanged, but the labor cost difference increases to \$209 million.

To provide a present value perspective on this capital versus operating cost issue, the following graph presents the discounted costs for both capital and staffing for each package over the entire period through 2048, assuming a 3% inflation rate.



PV of Lifecycle Costs - Capital Plus Staffing

Clearly the differences are not great, emphasizing again that the choice among the packages hinges on numerous non-economic factors, in addition to risk preference regarding future operating cost uncertainties.