

Sensitivity Analysis

A sensitivity analysis was carried out for the Quantitative Evaluation to determine if different weights for the factors would change the evaluation results. The sensitivity analysis tests the robustness of the evaluation.

As noted on the Qualitative Evaluation display board the base evaluation results are shown below.

Base Evaluation Results

	Overall Score				
	Alternative Haul Route 1	Alternative Haul Route 2	Alternative Haul Route 3	Alternative Haul Route 4	Alternative Haul Route 5
Base Weightings	895	789	947	709	617
Ranking	2	3	1	4	5

Sensitivity Analysis #1 – Public Input

In this sensitivity analysis the criteria weights were based on public input derived from public comment sheets and discussions at PIC #2 and PIC #3. Each of the major criteria was assigned a rating of ‘most important,’ ‘more important,’ or ‘important.’ Those ratings were then translated into a numerical format ‘most important’ = 3, ‘more important’ = 2, and ‘important’ = 1. The results are summarized in the table below.

Public Input Sensitivity Analysis Results

	Overall Score				
	Alternative Haul Route 1	Alternative Haul Route 2	Alternative Haul Route 3	Alternative Haul Route 4	Alternative Haul Route 5
Public Input Weightings	918	812	938	715	625
Ranking	2	3	1	4	5

Using weights developed from public input, sensitivity analysis 1 identified that the preferred haul routes in order of preference are: Alternative Haul Route 3, Alternative Haul Route 1, Alternative Haul Route 2, Alternative Haul Route 4, and Alternative Haul Route 5.

Sensitivity Analysis #2 – Equal Weights

In this sensitivity analysis we gave equal weights to the major criteria. The results are summarized in the table below.

Equal Weights Sensitivity Analysis Results

	Overall Score				
	Alternative Haul Route 1	Alternative Haul Route 2	Alternative Haul Route 3	Alternative Haul Route 4	Alternative Haul Route 5
Equal Weighting	926	815	940	722	629
Ranking	2	3	1	4	5

Sensitivity Analysis 2 identified that the preferred haul routes in order of preference are: Alternative Haul Route 3, Alternative Haul Route 1, Alternative Haul Route 2, Alternative Haul Route 4, and Alternative Haul Route 5.

Sensitivity Analysis Summary

The sensitivity analysis shows that using different weights does not change the order of preference of the alternative haul routes.

We are interested in your comments on the sensitivity analysis and suggestions for additional sensitivity analyses.