

- 7.5.23 Applying similar assumptions to the Low and High forecasts gives a range of 1,009 to 2,909 truck loads per day as shown in Table 7.4. These estimates apply to both the Maximum and Minimum estimates of diversion from road to rail.

**Table 7.4 Additional Truck Movements in Kwai Chung Port between PRT and Container Terminals**

Scenario	TEUs	Truck Loads	Truck Loads	Trucks incl. empties
	Annual	Annual	Daily	Daily
High	1,211,000	807,333	2,424	2,909
Central	799,000	532,667	1,600	1,920
Low	420,000	280,000	841	1,009

- 7.5.24 The environmental impacts of the PRL/PRT will a trade-off between the reduction in truck travelling between the Boundary and the Port (resulting from the diversion from road to rail), and those additional truck movements created between the PRT and container terminals in Kwai Chung.

- 7.5.25 Based on the truck movements from Tables 7.3 and 7.4 and the estimated distances travelled, the changes truck kilometres shown in Table 7.5 below.

**Table 7.5 Reductions in Daily Truck Travel, 2016**

Scenario	Reduction Diversion from Road to Rail		Additional Travel between PRT and CTS		Saving Truck-km	
	Truck Movements	Truck-km	Truck Movements	Truck-km	Maximum	Minimum
High	960	38,400	2,909	7,273	31,128	(7,273)
Central	635	25,400	1,920	4,800	20,600	(4,800)
Low	398	15,920	1,009	2,523	13,398	(2,523)

Note: (1) Under Minimum saving, figures in brackets represent increases in truck travel.

- 7.5.26 Using the data presented in Table 7.5, together with known emission factors, it has been possible to quantify the potential air quality "benefits" or "impacts" that are associated with either the increase or decrease in annual truck kilometres brought about as a result of the different scenarios.

- 7.5.27 NO<sub>x</sub> and RSP were chosen as the reference air quality pollutants because they are presently the principal air pollutants affecting roadside air quality, and of greatest concern in Hong Kong. In order to give an indication of the potential greenhouse gas effects, the changes in CO<sub>2</sub> were also estimated and compared.

#### *Emission Factors*

- 7.5.28 The data on quantities of air pollutant emissions produced per kilometre travelled by heavy goods vehicle are presented in Table 7.6. The data for NO<sub>x</sub> and RSP (which relates to the year 2011 and assumes, for example, that taxis are using LPG) was obtained from the EPD's vehicle emission group, whereas the data for CO<sub>2</sub> emissions was derived from the PATH Vehicle Emission Study.