

Technical Advisory - Summary of Changes to Environmental Calculation

An update was recently developed to improve the computations and data sources used in computing the benefit/cost values of environmental factors with TREDIS 4.0. These changes also align the computational methods across all reports, utilizing the same emissions factors.

TREDIS now bases the calculations on the sum of five pollutants (VOC, NO_x, SO_x, PM, and CO₂), taking into consideration the emissions for both congested and uncongested traffic conditions as it affects vehicle miles travelled (VMT) and also emissions for vehicle hours traveled (VHT).

While in the past, TREDIS directly used publically available cost values for all pollutants, this update considers the amount of pollutants generated by the transportation mode, applies it to the congested/uncongested VMT and VHT values and then applies cost factors on each of the five pollutants, resulting in a more accurate portrayal of the environmental costs. This approach is carried across all TREDIS reports, now providing more consistent picture of environmental impacts due to the transportation project under consideration.

In addition to the changes in calculation methodology, updates and additions were made to the fixed factors for pollutants by type, cost per ton of each pollutant, and or additional modes of transportation, making the data set more robust.

Note, while TREDIS provides environmental related impacts to the benefit cost analysis, it is not intended to be a replacement for more sophisticated emissions analysis systems.