

FAQ: The NO_x to NO₂ calculator asks me (under “*General Inputs*” - step 4) to specify the traffic mix. Which option should I choose from the dropdown box?

1.01 The dropdown box contains 6 options: “*All UK traffic*”, “*All London traffic*”, “*All other urban UK traffic*”, “*All non-urban UK traffic*”, “*Buses (outside London)*”, and “*London buses*”. The descriptors “*urban*” and “*non-urban*” are based upon the DfT’s definition: an urban road is a road within an urban area with a population of 10,000 or more. However, traffic on motorways within urban areas, including London, should be considered separately. It is also recognized that study areas (and roads) which cross more than one area definition are difficult to include. The following is advised:

1.02 “*All UK traffic*” should only be used if none of the other options given below are suitable for your data.

1.03 “*All London traffic*” can be used anywhere in London except adjacent to motorways or where buses dominate the vehicle fleet.

1.04 “*All other urban UK traffic*” is an average of all urban roads outside of London, excluding motorways in urban areas. If your receptors or diffusion tubes are in an urban area and not near to motorways, you can use this option.

1.05 “*All non-urban UK traffic*” gives a national average of traffic on non-urban roads and all motorways. If your receptors or diffusion tubes are outside of urban areas or near to any motorway, even in urban areas, you can use this option.

1.06 “*Buses (outside London)*” can be used outside London where buses dominate your local fleet.

1.07 “*London buses*” can be used inside London where buses dominate your local fleet.

1.08 In many situations you may have sufficiently detailed information to calculate your own fNO₂ value. You can do this using the “*fNO₂*” page of the calculator. As an example, if you are running a dispersion model using traffic data with a detailed fleet composition, you could use the following procedure to generate an emission-weighted fNO₂:

- 1) run the dispersion model (to predict road-NO_x) for each vehicle class independently;
- 2) calculate the percentage contribution of each vehicle class to total road-NO_x at each receptor;
- 3) note down the fNO₂ values for each vehicle class from the fNO₂ page of the calculator;
- 4) calculate a weighted average fNO₂ value using the results from steps 2 and 3;
- 5) enter this value directly into the "*NO_x to NO₂ sheet*" or "*Diffusion tubes*" sheet.

1.09 When you enter your fNO₂ values directly into the calculator, you do not need to specify a traffic mix in under "*General Inputs*".