7.0 IMPACT ASSESSMENT OF THE PLAN

The Technical Appendix to the plan provides the approach taken to establishing the likely improvements to air quality within the AQMA that may arise as a consequence of the implementation of specific measures under a "Low Intensity" approach and a "High Intensity" approach. In both cases, the 2010 scenarios have constrained traffic growth over the lifetime of the Local Transport Plan – the main instrument for implementation of the measures – to zero.

Results show that improvements in air quality in the AQMA will occur by 2010. However, St Georges Street and Jewry Street are likely to remain above the annual mean objective of 40µg/m^3. However, these locations have limited domestic residences compared to other locations currently within the AQMA.

The precise extent of exceedence in George Street is difficult to ascertain from the current modelling approach. Whilst reasonable agreement between the monitored and modelled concentrations for 2004 are shown to occur elsewhere across the AQMA, the model is shown to under-predict in George Street by some 22 – 27%. As such, the predicted exceedences in 2010 within George Street may be a low as 40µg/m^3 or as high as 50µg/m^3.

The impact of the measures contained within the plan (or those that lend themselves easily to a dispersion modelling assessment) is shown to be relatively minor. By far, the largest contribution to improvements in future air quality is attributed to the constrained traffic growth within the AQMA. When compared to the future base scenario, implementation of the action plan measures under a "Low Intensity" approach is likely to lead to a maximum additional reduction in the annual mean NO_2 of 0.6%. Under a "High Intensity" approach, the maximum reduction on the annual mean NO_2 is anticipated to be 0.9%.

Results of the dispersion modelling assessment show that the extent of the AQMA will decrease considerably over the lifetime of the next Local Transport Plan. However, continued exceedences of the annual mean objective for NO2 may occur beyond 2010, the precise extent of which requires further work and clarification on the model parameter inputs – particularly for George Street where the model is shown to under-predict when compared to monitored data.

It is clear that additional future measures might need to be considered in order that compliance with the annual mean objective can be achieved.

Additional measures that could be considered are:

- The implementation of a Low Emission Zone (LEZ) – a geographically defined area into which only vehicles of a specified minimum emission standard can enter. An LEZ specifically aims to target those vehicle classes that are deemed to be the most polluting – namely, buses and coaches, heavy goods vehicles and light duty vehicles.
- Further demand management measures, which have previously been dismissed on a cost /befit analysis.
- Further infrastructure development.

It is therefore proposed to reassess the feasibility and necessity of such measures within the year 2009/10. This will allow:

- Time to implement and monitor impacts of other measures already proposed,
- Collection of real time monitoring data to compare reality against modelled uncertainties,
- The phasing-in of other measures within the next Local Transport policy beyond 2011, as these measures are likely to require large capital funding allocations.