

Appendix 2: Summary of impacts monitoring work programme

This appendix provides a summary table that identifies the main work packages that comprise the impacts monitoring programme for the London Low Emission Zone scheme. Cross-references are outlined to sections of this report where more detail is provided.

Table A2.1 Principal work packages for monitoring the London Low Emission Zone.

| Work package | Target quantity/issue | Output | Report section |
|---|---|--|----------------|
| Traffic trends | Background traffic volume/composition and freight trends in London. | Various traffic volume and composition counts and trends – London and outside. | 4 |
| ANPR vehicle monitoring cameras | Euro Class composition (ie emissions performance) of vehicle kilometres travelled in Greater London. Note includes all vehicle types with four or more wheels – not just those likely to be affected by the scheme. | Four-weekly estimates of Euro Class proportions representative of vehicle kilometres in Greater London. | 5 |
| Emissions change | Change in emissions resulting from observed vehicle population change. | Definitive annual estimates of emissions from all sources, including attribution of scheme impact. | 6 |
| Improvements to emissions estimation methodology | Review and selected improvements to emissions factors for scheme-affected vehicles. | Various initiatives resulting in improved ability to reflect specific scheme impacts on emissions of key pollutants. | 6 |
| Air quality change – modelled | Calculated impact of observed vehicle/emissions change on concentrations of key pollutants. | Definitive annual estimates of atmospheric concentrations of key pollutants, including attribution of scheme impact. | 7 |
| Improvements to air quality modelling methodology | Review and selected improvements to modelling methodologies for key pollutants. | Various initiatives resulting in improved ability to reflect specific scheme impacts on modelled atmospheric concentrations of key pollutants. | 7 |
| Measured air quality | Trends in observed concentrations of key pollutants – London and regional-scale analysis. | Annual and periodic reviews of observed trends in air quality before/after scheme. | 8 and 10 |

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|---|--|---|----------------|
| LEZ air quality monitoring 'supersites' | Enhanced and co-located pollution/traffic measuring capability at selected high-change-signal sites. | Various initiatives resulting in improved understanding of micro-scale relationships between observed traffic change and air quality change – and better characterisation of relationships for improved air quality modelling and health studies. | 9 |
| Traffic, emissions and air quality impact outside London | Understanding and quantification of scheme impacts on air quality outside London. | Various initiatives resulting in before/after comparison of traffic, emissions and air quality indicators outside London. | 10 |
| Health impacts – modelled | Re-calibration of health impacts model and re-estimation of scheme impacts based on observed changes and improved understanding of health impact pathways. | Summary report of investigation. | 11 |
| Health impacts – observed | Evidence of attributable changes in public health. Evidence of health-relevant changes in pollution indicators. Experimental study of respiratory function response in schoolchildren. | Various reports, including collaboration with existing academic studies. | 11 |
| Haulage and bus/coach industry trends | Background changes and trends in UK haulage and bus/coach industries | Identification and tracking of key change indicators. | 12 |
| Operator costs | Re-calibration of operator cost model and re-estimation of scheme impacts based on observed changes and improved understanding of operator cost structure and adaptations. | Estimation of net costs of scheme to operators and consequent impacts on business activity. | 12 |
| Trends during 2007 reflecting operator preparation for the scheme | Description of TfL and vehicle operator preparations for the introduction of the scheme – indicative data characterising pre-scheme change. | Public information, scheme awareness, intended operator adaptations, changing 'compliance profile' ahead of scheme introduction. | 13 |
| Early impacts – phase 1 of the scheme | Emerging trends from, the operational processes associated with the scheme, together with early indications from the monitoring work describing operator compliance. | Early and indicative appreciations of emerging scheme impacts. | 13 |