

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