

## **A12 – Air Quality**

A12.1 – Construction Dust Assessment Methodology

A12.2 – Road Traffic Emissions Assessment Methodology

A12.3 – Local Authority Monitoring and Measurement Data

A12.4 – Sensitivity Analysis



## Appendix A12.1

### **Construction Dust Assessment Methodology**



### **Defining the Sensitivity of Dust Sensitive Receptors**

- A12.1.1 Particulate matter may have an impact whilst airborne or as a result of its deposition onto a solid or liquid surface. Consequently the nature of the impact requiring assessment varies between different types of receptor. In general receptors associated with higher baseline dust deposition rates (e.g. light and heavy industry or outdoor storage facilities) are less sensitive to impacts. In comparison some hi-technology commercial premises or museums and galleries are likely to be more sensitive.
- A12.1.2 Table A12.1 provides some generic examples of the type of impacts that may result from fugitive emissions of particulate matter. The sensitivity of receptor types is listed for selected impacts, with sensitivity being described as 'high' for receptors that are especially sensitive to the specified impact.
- A12.1.3 When assessing the impact of dust emissions generated during construction works, receptors are defined as the nearest potentially sensitive receptor to the boundary of the site in each direction. These receptors have the potential to experience impacts of greater magnitude due to emissions of particulate matter generated by the works, when compared with other more distant receptors, or less sensitive receptors.

**Table A12.1:** Types of Impacts from Emissions of Particulate Matter

Nature of Impact	Receptor Types Affected	Relative Sensitivity
Change in 24 hour mean PM <sub>10</sub> concentrations	Residential properties Schools Hospitals and clinics	Receptor sensitivity was considered when Air Quality Objective Value was set
Change in rate at which air filtration units require maintenance	Hospitals and clinics	High
	Hi-tech industries	High
	Food processing industries	High
Change in rate at which material accumulates on glossy surfaces, such as glass or paint work	Painting and furnishing operations	High
	Residential properties	Medium
	Schools	Medium
	Food retailers	Medium
	Offices	Low
Change in rate at which properties or products become soiled by deposited material	Museums and galleries	Medium
	Food processing industries	High
	Painting and furnishing operations	High
	Museums and galleries	High
	Residential properties	Medium
	Food retailers	Medium
Offices	Low	