



FIGURE 16.11 PM₁₀ ANNUAL AVERAGED CONTOURS

TABLE 16.14 PREDICTED PM₁₀ LEVELS AT NEAREST RECEPTORS

RECEPTOR NO.	AVERAGED DAILY	AVERAGED ANNUAL
1	<35	<22
2	<35	<22
8	45	26
9*	53	26
10*	54	28
13	30	<22
14	23	<22
15	40	25
16	40	25
19*	56	30
20*	36	24

* HWC-owned properties

As may be seen, there would be minor exceedances for several receptors for average daily PM₁₀ and for one receptor for average annual PM₁₀. All receptors are on HWC-owned land.

Total suspended particulates

There is no available guideline level of acceptable daily averaged TSP concentrations hence the predicted concentrations cannot be compared against published allowable limits. Annually averaged concentrations do however have an acceptable guideline level which has been stipulated by the DECC to be 90 µg/m³. As noted in Section 16.2.1, no suitable information could be found to identify a background level for annual TSP. Given local conditions, however, it is considered unlikely that background levels would be such that this criterion would be exceeded.

Modelling of TSP emissions showed that annual averaged concentration at the nearest sensitive receptors (same as for PM_{2.5} and PM₁₀) is predicted to be approximately 45 µg/m³ (Figure 16.12). These receptors are all on HWC-owned land. The predicted level for the nearest receptor on private land is approximately 35 µg/m³ which would comply with the DECC criterion.

Ground level concentrations of TSP are more likely to have nuisance impact on sensitive receivers as opposed to any significant health impacts.

Predicted monthly dust deposition

Monthly dust deposition levels at the nearest receptor on private property receiver show that for the worst case assessment, the predicted level is less than 2 g/m²/month (refer Figure 16.13). This level meets the maximum allowed increase in deposited dust as shown in Table 16.13.

16.2.5 Construction vehicles and plant emissions

The main sources of emissions from heavy vehicles, stationary combustion plants and mobile excavation equipment would be related to diesel combustion. The main air emissions of potential concern from diesel combustion include particulate compounds, CO, VOCs, NO_x and heavy metals.

These emissions were not considered explicitly in the air quality assessment as they are expected to be minor sources relative to the potential for dust generation. The impact of emissions from construction vehicles and machinery is dependant on the type of fuel used, hours of operation and the relative distance between the emission source and the sensitive receptors.



