

APPENDIX R –

**ATMOSPHERIC DISPERSION SIMULATION RESULTS – AIR POLLUTANT
CONCENTRATIONS AND DUST DEPOSITION RATES DUE TO MATIMBA POWER
STATION EMISSIONS**

Scenario	Pollutant	Averaging Period	Figure No.
Current Matimba Power Station Emissions	Sulphur dioxide	Highest hourly	C.1
		Highest daily	C.2
		Annual average	C.3
		Frequency of exceedance of hourly limit of 350 µg/m ³	C.4
		Frequency of exceedance of daily limit of 125 µg/m ³	C.5
	Nitrogen dioxide	Highest hourly	C.6
		Annual average	C.7
	PM10	Highest daily	C.8
		Annual average	C.9
	Dustfall	Maximum monthly dustfall rate	C.10

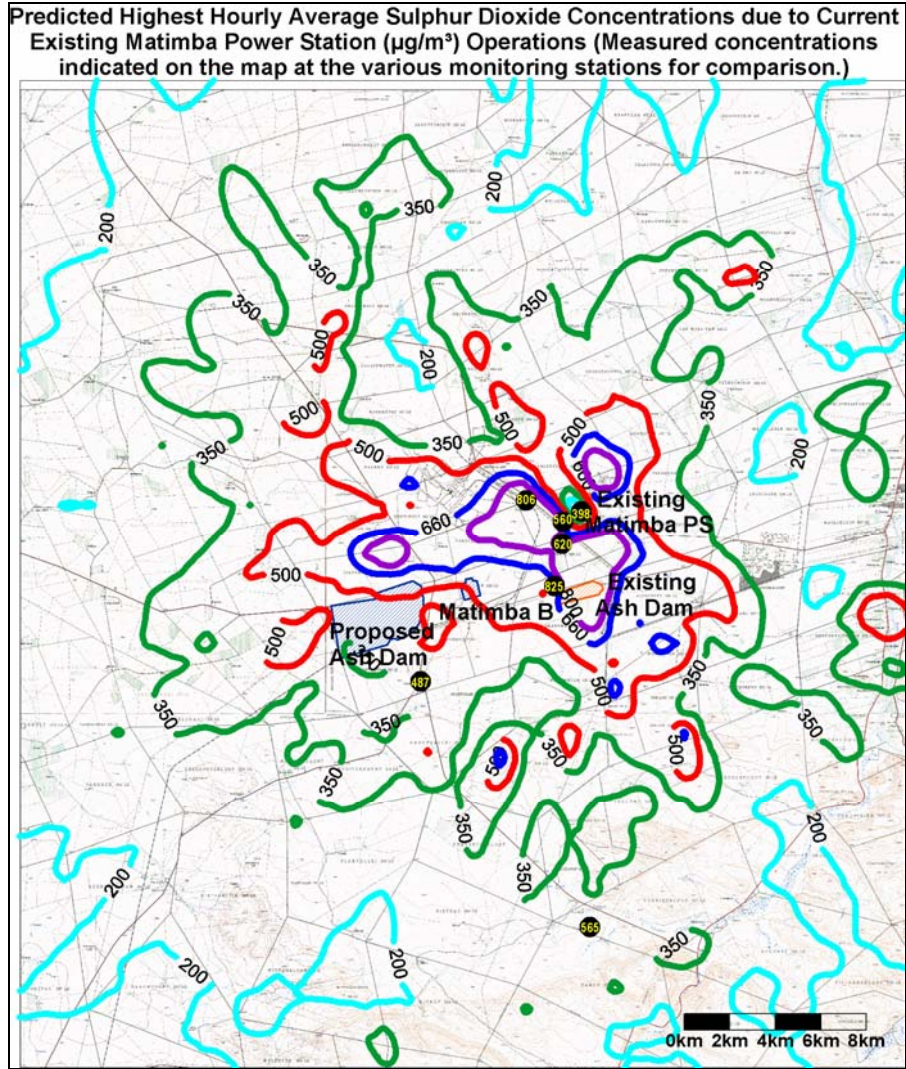


Figure C.1 Predicted highest hourly average sulphur dioxide due to current routine Matimba Power Station emissions

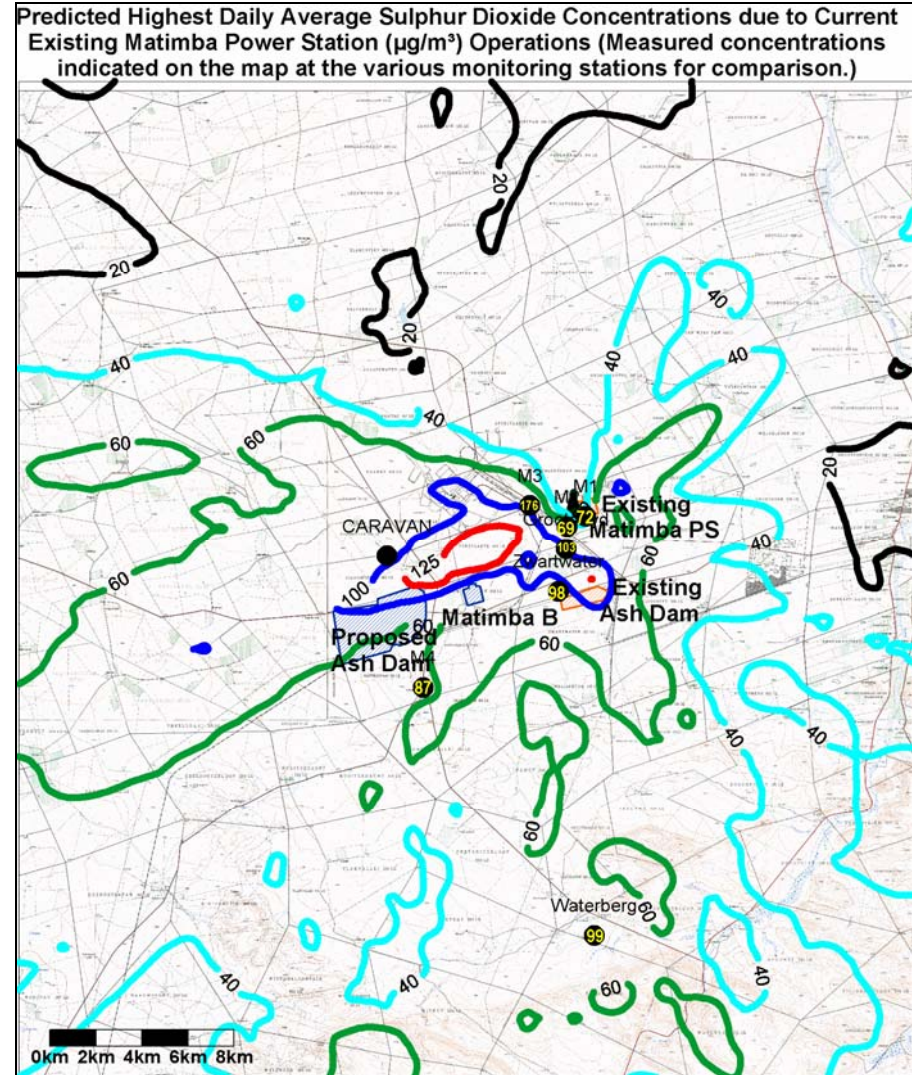


Figure C.2 Predicted highest daily average sulphur dioxide due to current routine Matimba Power Station emissions

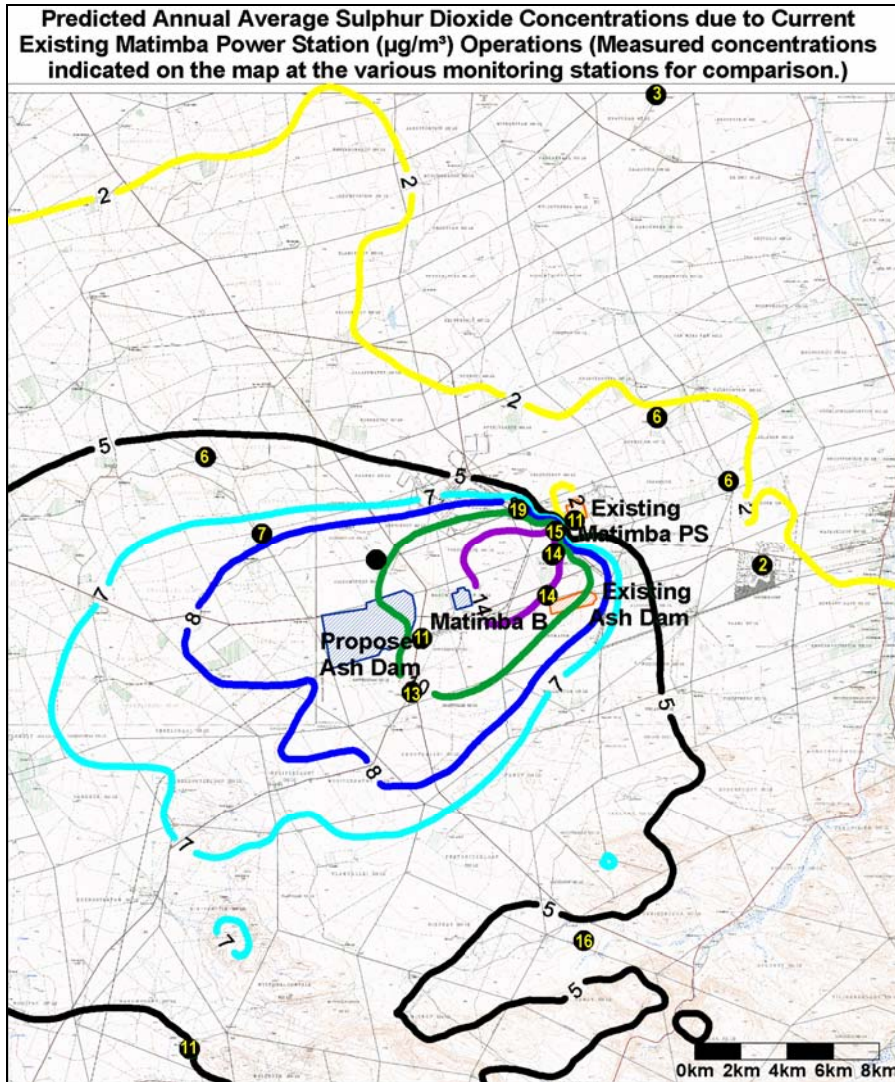


Figure C.3 Predicted annual average sulphur dioxide due to current routine Matimba Power Station emissions

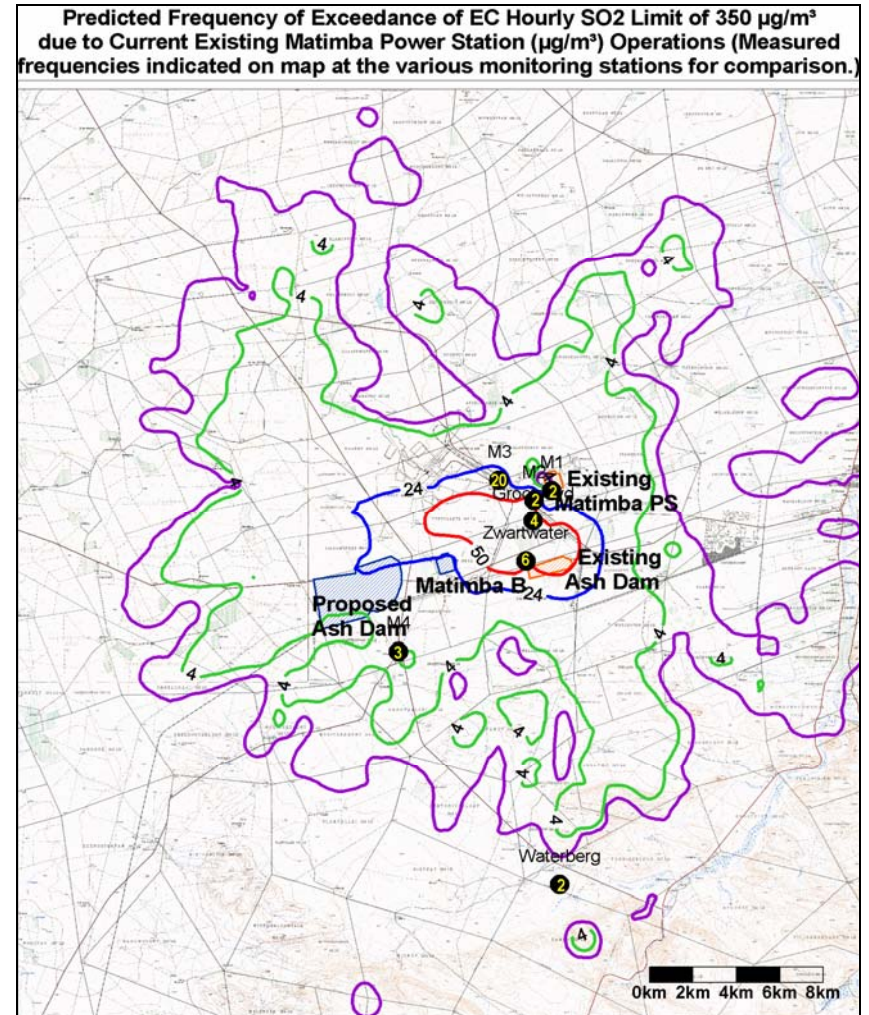


Figure C.4 Predicted frequencies of exceedance of the EC hourly sulphur dioxide limit of $350 \mu\text{g}/\text{m}^3$ due to Matimba Power Station emissions

Predicted Frequency of Exceedance of DEAT Daily SO₂ Limit of 125 µg/m³ due to Current Existing Matimba Power Station (µg/m³) Operations (Measured frequencies indicated on map at the various monitoring stations for comparison.)

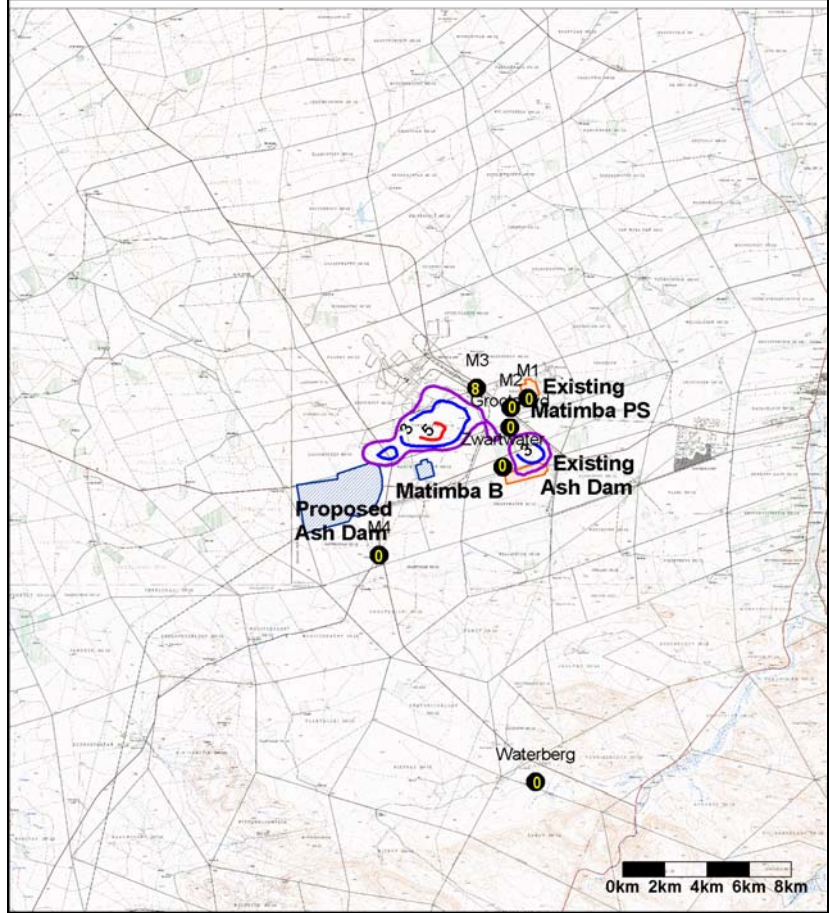


Figure C.5 Predicted frequencies of exceedance of the SA daily sulphur dioxide limit of 350 µg/m³ due to Matimba Power Station emissions

Predicted Highest Hourly Average Nitrogen Dioxide Concentrations due to Current Existing Matimba Power Station (µg/m³) Operations

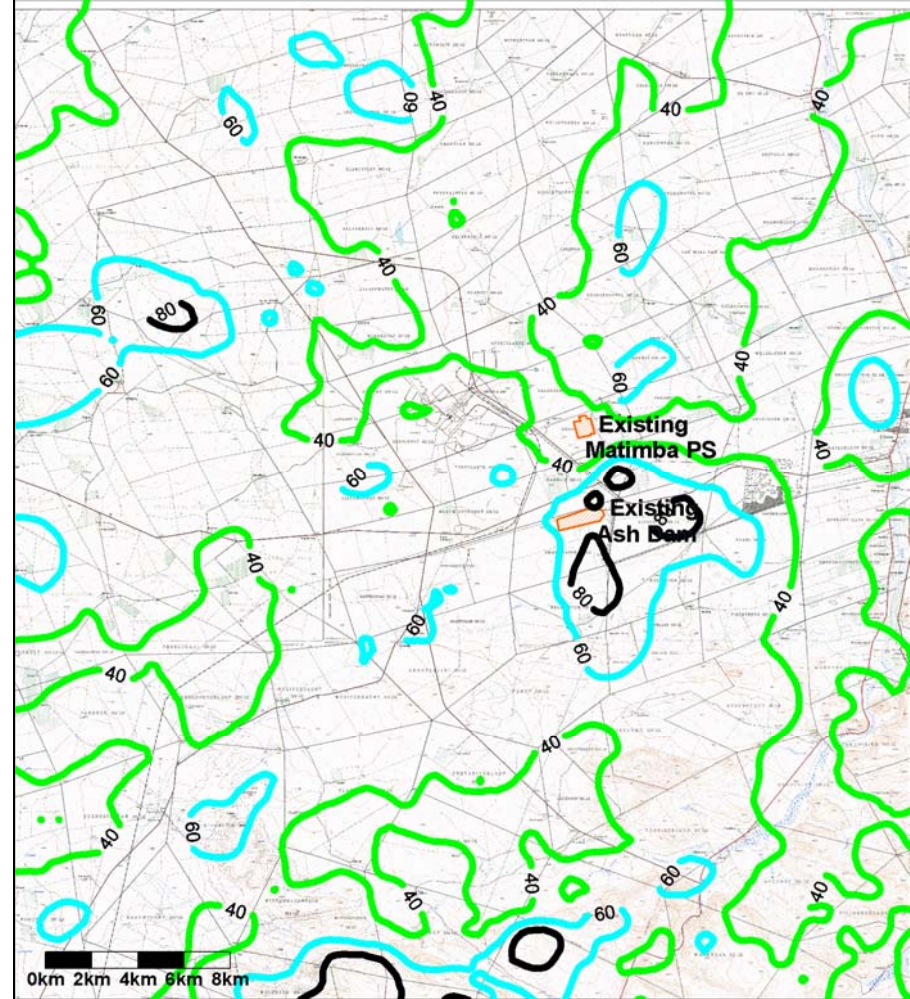


Figure C.6 Predicted highest hourly average nitrogen dioxide due to current routine Matimba Power Station emissions

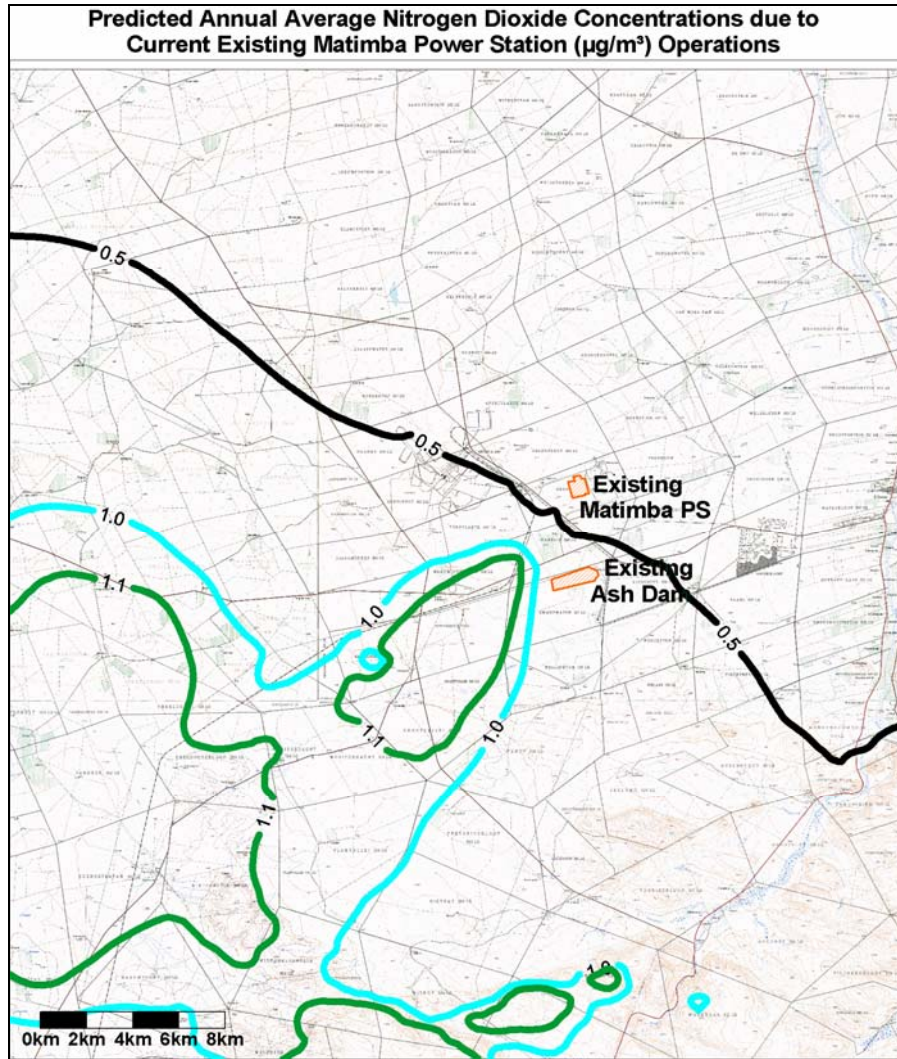


Figure C.7 Predicted annual average nitrogen dioxide due to current routine Matimba Power Station emissions

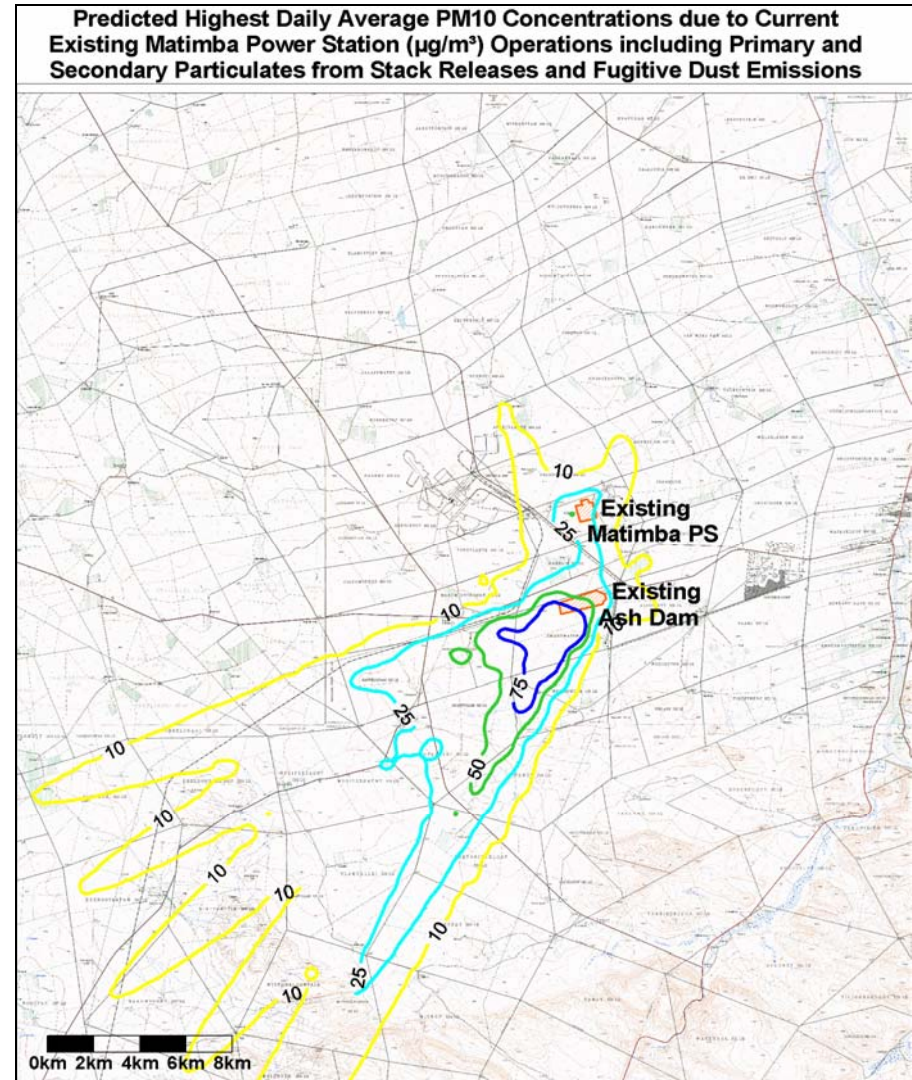


Figure C.8 Predicted highest daily average PM10 concentrations due to current routine Matimba Power Station emissions

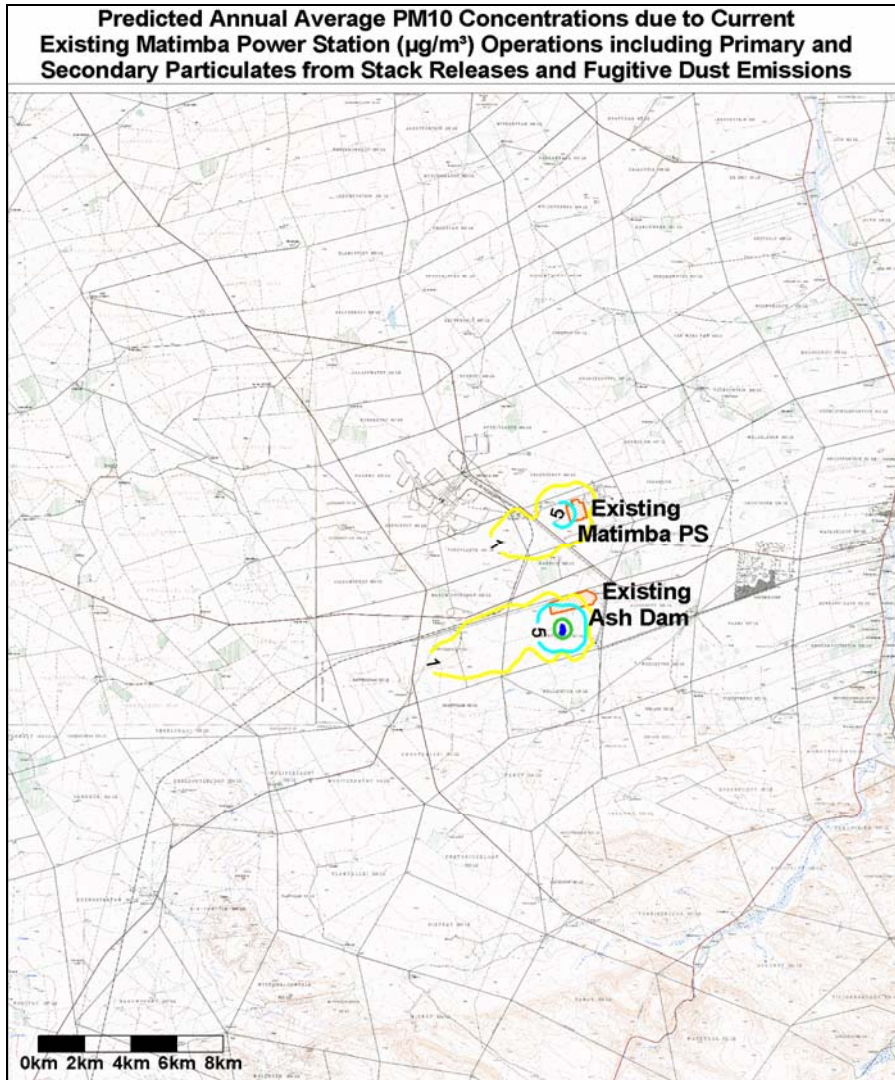


Figure C.9 Predicted annual average PM10 concentrations due to current routine Matimba Power Station emissions

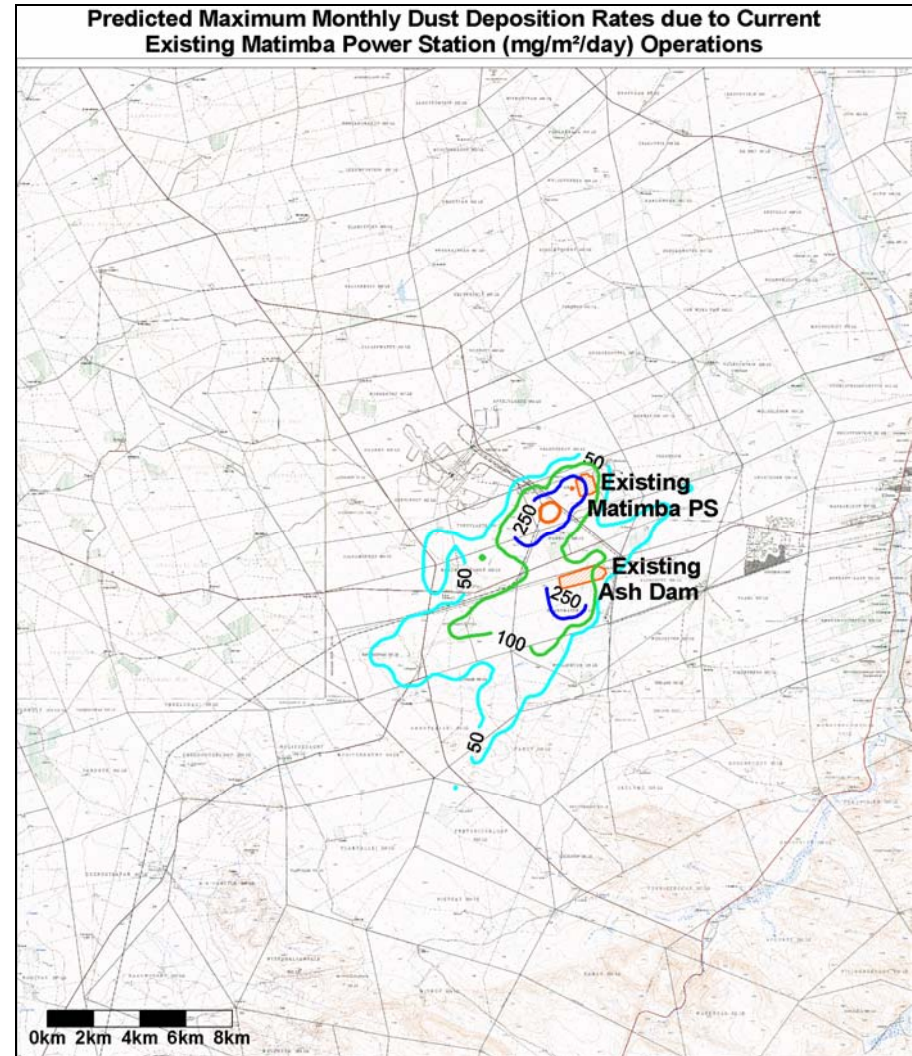


Figure C.10 Predicted maximum monthly dustfall rate due to current routine Matimba Power Station emissions

