



ROOTY HILL DISTRIBUTION CENTRE ENVIRONMENTAL MONITORING

Aspect Air Quality, Noise and Meteorology

Date January 2013

SUMMARY

Monitoring period	1 January – 31 January 2013
Parameters monitored in period	Dust (PM ₁₀) Meteorology Noise
Exceedances of assessment criteria	None
Action required	None

Monitoring Locations

- Dust monitoring (PM₁₀): Olympic Park (refer to **Figure 1**).
- Noise monitoring: Locations 1 – 5
- Meteorology: Olympic Park

Monitoring Methodology

Dust

Air quality (dust) monitoring was undertaken using an Ecotech High Volume Air Sampler (HVAS) 3000 with a Particulate Matter - 10µm (PM₁₀) sampling head. The HVAS was operated on one-day-in-six in accordance with *AS/NZS 3580.9.6:2003 Methods for sampling and analysis of ambient air, Method 9.6: Determination of suspended particulate matter (PM10) – High volume sampler with size selective inlet - Gravimetric method*.

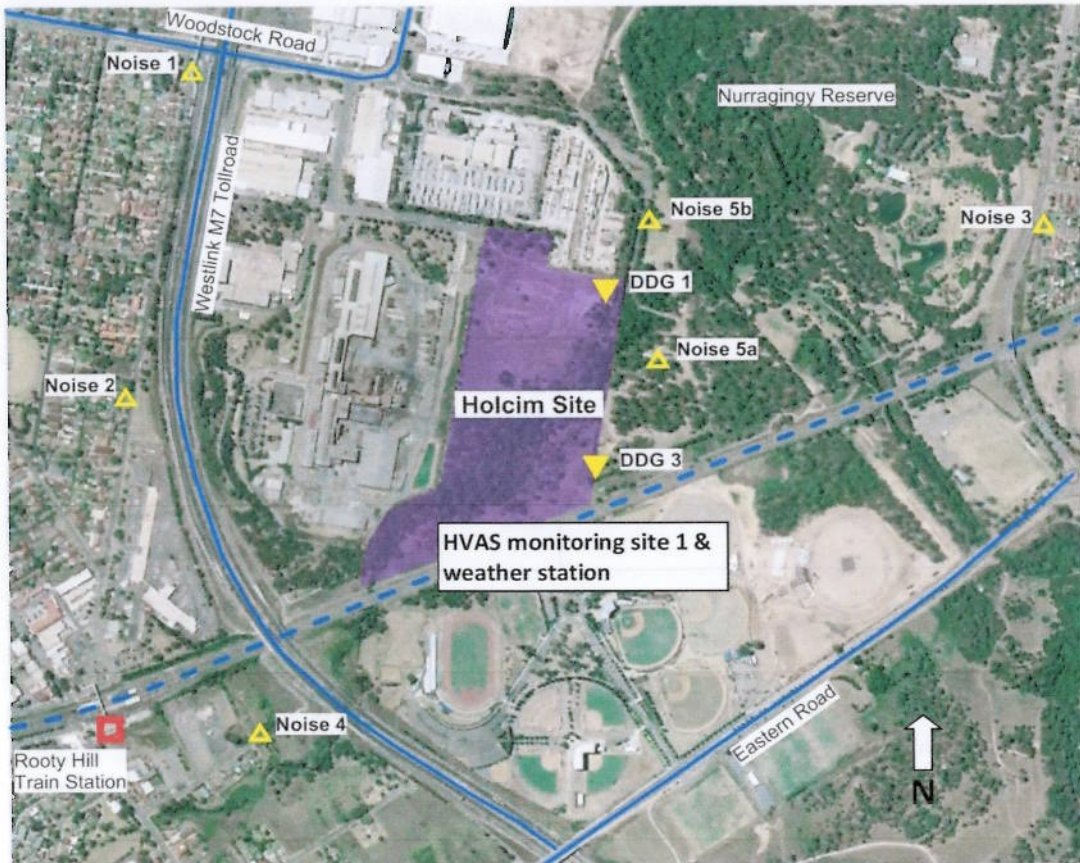
Noise

Attended construction noise was monitored for 15 minute attended periods in accordance with the requirements set out in the EPA (2000) Industrial Noise Policy and the DECC (2009) Interim Construction Noise Guidelines. Monitoring was carried out using a Brüel and Kjær Type 1 2260 Sound Level Meter by appropriately qualified personnel.

Meteorology

Meteorological conditions were monitored using a Davis Vantage Pro2 Plus monitoring unit. This unit was positioned in accordance with AS2923-1987 *Ambient air – Guide for measurement of horizontal wind for air quality applications*.

■ Figure 1 Monitoring location



Guidelines

Dust

Air quality (dust) criteria within the Project Conditions of Approval and the Construction Dust Management Plan mirror those in the NSW EPA document *Approved methods for the modelling and assessment of air pollutants in New South Wales* (DEC 2005). The air quality assessment criteria are outlined below, which apply cumulatively (that is, due to all sources of emissions and not just the contribution from the project).

Pollutant	Averaging period	Concentration
PM ₁₀	24 hours	50ug/m ³
	Annual	30ug/m ³
Deposited dust	Annual	4 g/m ² /month

Noise

Noise criteria are contained within Table 1 of the Developmental Approval Consent Conditions (Project Application No 05-0051), and are as follows:

“The proponent shall design, construct, operate and maintain the project to ensure that the noise contributions from the project to the background acoustic environment do not exceed...”:

Location	Morning Shoulder (6am to 7am Mon to Sat and 6am to 8am Sun and Pub Hol)	Day (7am to 6pm Mon to Sat and 8am to 6pm Sun and Pub Hol)	Evening (6pm to 10pm all days)	Night (10pm to 7am Mon to Sat and 10pm to 8am Sun)	
	L _{Aeq(15min)} dB(A)	L _{Aeq(15min)} dB(A)	L _{Aeq(15min)} dB(A)	L _{Aeq(15min)} dB(A)	L _{A1(1min)} dB(A)
Station St residences	39	44	44	39	53
Crawford Rd residences	40	40	39	39	53
Mavis St residences	35	35	35	35	53
Nurragingy reserve	When the reserve is in use L _{Aeq} 50dB(A)				
Colebee Centre	When the centre is in use – L _{Aeq} 50dB(A)				
Blacktown Olympic Park (active recreation areas)	When active recreation areas of the Park are in use – L _{Aeq} 55dB(A)				

Meteorology

Not applicable

Monitoring results

Dust (PM₁₀)

Date	PM ₁₀ (ug/m ³)	
	Measured result	Criteria
4 January 2013	19	50
10 January 2013	25	50
16 January 2013	21	50
22 January 2013	10	50
28 January 2013	23	50
Annual average (to date)	22.7	30

No exceedances of dust criteria were recorded during January 2013.

Noise

The results of attended construction noise monitoring are presented below:

Location	Start	Construction L _{Aeq}	L _{Aeq}	L _{A10}	L _{A90}	Project criteria L _{Aeq(15min)} dB(A)	Notes
1	15:00	Inaudible	54	57	45	44	Holcim inaudible, M7 (constant 55, Woodstock avenue traffic (frequent 55-65), local residential noise
2	14:40	Inaudible	57	60	53	44	Holcim inaudible, M7 (constant 50-60), local traffic (regular 60-80)
3	16:15	Inaudible	61	62	51	40	Holcim inaudible, Knox Rd traffic (constant 50-55, infrequent 63-67)
4	15:25	Inaudible	56	59	51	35	Holcim inaudible, M7 (constant 55-60), occasional max to 65, birds, cicadas
5a	12:25	47	58	60	55	50	Holcim - excavator near SE corner (infrequent 50 L _{Aeq} , bucket bangs frequent 73 - 5 minutes only), train 60-65, Industrial area (continuous 40), construction on bridge Knox Rd (Not measureable), cicadas, birds
5b	13:05	Inaudible	61	61	52	50	Holcim inaudible, Hume concrete (excavator, bucket bangs 40 - 55), local traffic (55-65), train 60, cicadas, birds (50-60)

No exceedances of noise criteria were recorded during January 2013.

Meteorology

A wind rose showing the proportion of direction and strength of winds throughout the reporting period is below. A complete data set, including, humidity, temperature and rainfall can be provided on request.

