

***Appendix 4.4 – Construction Plant
Inventory (Unmitigated Scenario)***

Appendix 4.4 Construction Plant Inventory (Unmitigated Scenario)

Powered Mechanical Equipment (PME)	Reference	SWL, dB(A)	No. of Units	% of Utilization	Sub-total SWL, dB(A)
Phase 1 Construction Works					
<i>Construction of New Exit Road within WKCD Area</i>					
A1 - Site Clearance / Set-up / Plant Mobilization					
Breaker, Excavator Mounted (Pneumatic)	CNP 027 ^[1]	122	1	30%	117
Loader	CNP 081 ^[1]	112	1	30%	107
Lorry	CNP 141 ^[1]	112	1	30%	107
Mobile Crane	CNP 048 ^[1]	112	1	30%	107
Total SWL (Activity)					118
A2 - UU Protection & Diversion Works					
Excavator	CNP 081 ^[1]	112	1	30%	107
Loader	CNP 081 ^[1]	112	1	30%	107
Lorry	CNP 141 ^[1]	112	1	30%	107
Mobile Crane	CNP 048 ^[1]	112	1	30%	107
Total SWL (Activity)					113
A3 - Construction Works					
A3.1 Piling Works					
Mobile Crane	CNP 048 ^[1]	112	1	30%	107
Piling, Vibrating Hammer	[2]	115	1	30%	110
Dump Truck	[2]	105	1	30%	100
Backhoe	CNP 081 ^[1]	112	1	30%	107
Air Compressor	CNP 003 ^[1]	104	1	100%	104
Concrete Lorry Mixer	CNP 044 ^[1]	109	1	30%	104
Generator, Silenced	CNP 102 ^[1]	100	1	100%	100
Piling, Large Diameter Bored, Grab and Chise	CNP 164 ^[1]	115	1	40%	111
Piling, Large Diameter Bored, Oscillator	CNP 165 ^[1]	115	1	40%	111
Piling, Large Diameter Bored, RCD	CNP 166 ^[1]	100	1	100%	100
Total SWL (Activity)					117
A3.2 Pile Cap & Pier / Abutment Construction					
Concrete Lorry Mixer	CNP 044 ^[1]	109	1	30%	104
Dump Truck	[2]	105	1	30%	100
Backhoe	CNP 081 ^[1]	112	1	50%	109
Generator, Silenced	CNP 102 ^[1]	100	1	100%	100
Mobile Crane	CNP 048 ^[1]	112	1	30%	107
Poker, Vibratory, Hand-held	CNP 170 ^[1]	113	3	30%	113
Saw, Circular, Wood	CNP 201 ^[1]	108	1	30%	103
Bar Bender and Cutter (Electric)	CNP 021 ^[1]	90	1	30%	85
Breaker, Hand-held, Mass <= 10kg	CNP 023 ^[1]	108	1	30%	103
Concrete Mixer	CNP 045 ^[1]	96	1	30%	91
Concrete Pump	CNP 047 ^[1]	109	1	30%	104
Lorry	CNP 141 ^[1]	112	1	30%	107
Total SWL (Activity)					117
A3.3 Falsework & Deck Construction					
Concrete Lorry Mixer	CNP 044 ^[1]	109	1	80%	108
Mobile Crane	CNP 048 ^[1]	112	1	70%	110
Poker, Vibratory, Hand-held	CNP 170 ^[1]	113	1	50%	110
Generator, Silenced	CNP 102 ^[1]	100	1	100%	100
Bar Bender and Cutter (Electric)	CNP 021 ^[1]	90	1	100%	90
Breaker, Hand-held, Mass <= 10kg	CNP 023 ^[1]	108	1	100%	108
Concrete Mixer	CNP 045 ^[1]	96	1	100%	96
Concrete Pump	CNP 047 ^[1]	109	1	100%	109
Lorry	CNP 141 ^[1]	112	1	50%	109
Total SWL (Activity)					117
A3.4 Drainage & Pavement Construction					
Excavator	CNP 081 ^[1]	112	1	30%	107
Loader	CNP 081 ^[1]	112	1	30%	107
Lorry	CNP 141 ^[1]	112	1	30%	107
Mobile Crane	CNP 048 ^[1]	112	1	30%	107
Asphalt Paver	CNP 004 ^[1]	109	2	100%	112
Roller, Vibratory	CNP 186 ^[1]	108	2	100%	111
Generator, Silenced	CNP 102 ^[1]	100	2	100%	103
Paint Line Marker	CNP 161 ^[1]	90	2	80%	92
Total SWL (Activity)					117

Appendix 4.4 Construction Plant Inventory (Unmitigated Scenario)

Powered Mechanical Equipment (PME)	Reference	SWL, dB(A)	No. of Units	% of Utilization	Sub-total SWL, dB(A)
A3.5 - Construction of At-grade Loop Road					
Excavator	CNP 081 ^[1]	112	1	30%	107
Loader	CNP 081 ^[1]	112	1	30%	107
Lorry	CNP 141 ^[1]	112	1	30%	107
Mobile Crane	CNP 048 ^[1]	112	1	30%	107
Total SWL (Activity)					113
Phase 2 Construction Works					
<i>Construction of New Exit Road within WHC Area</i>					
B1 - Site Clearance / Set-up / Plant Mobilization					
Breaker, Excavator Mounted (Pneumatic)	CNP 027 ^[1]	122	1	30%	117
Loader	CNP 081 ^[1]	112	1	30%	107
Lorry	CNP 141 ^[1]	112	1	30%	107
Mobile Crane	CNP 048 ^[1]	112	1	30%	107
Total SWL (Activity)					118
B2 - UU Protection & Diversion Works					
Excavator	CNP 081 ^[1]	112	1	30%	107
Loader	CNP 081 ^[1]	112	1	30%	107
Lorry	CNP 141 ^[1]	112	1	30%	107
Mobile Crane	CNP 048 ^[1]	112	1	30%	107
Total SWL (Activity)					113
B3 - Construction Works					
B3.1 Piling Works					
Mobile Crane	CNP 048 ^[1]	112	1	30%	107
Piling, vibrating hammer	[2]	115	1	30%	110
Dump Truck	[2]	105	1	30%	100
Backhoe	CNP 081 ^[1]	112	1	30%	107
Air Compressor	CNP 003 ^[1]	104	1	100%	104
Concrete Lorry Mixer	CNP 044 ^[1]	109	1	30%	104
Generator, Silenced	CNP 102 ^[1]	100	1	100%	100
Chisel	CNP 164 ^[1]	115	1	40%	111
Piling, Large Diameter Bored, Oscillator	CNP 165 ^[1]	115	1	40%	111
Piling, Large Diameter Bored, RCD	CNP 166 ^[1]	100	1	100%	100
Total SWL (Activity)					117
B3.2 Pile Cap & Pier / Abutment Construction					
Concrete Lorry Mixer	CNP 044 ^[1]	109	1	30%	104
Dump Truck	[2]	105	1	30%	100
Backhoe	CNP 081 ^[1]	112	1	50%	109
Generator, Silenced	CNP 102 ^[1]	100	1	100%	100
Mobile Crane	CNP 048 ^[1]	112	1	30%	107
Poker, Vibratory, Hand-held	CNP 170 ^[1]	113	3	30%	113
Saw, Circular, Wood	CNP 201 ^[1]	108	1	30%	103
Bar Bender and Cutter (Electric)	CNP 021 ^[1]	90	1	30%	85
Breaker, Hand-held, Mass <= 10kg	CNP 023 ^[1]	108	1	30%	103
Concrete Mixer	CNP 045 ^[1]	96	1	30%	91
Concrete Pump	CNP 047 ^[1]	109	1	30%	104
Lorry	CNP 141 ^[1]	112	1	30%	107
Total SWL (Activity)					117
B3.3 Falsework & Deck Construction					
Concrete Lorry Mixer	CNP 044 ^[1]	109	1	80%	108
Mobile Crane	CNP 048 ^[1]	112	1	70%	110
Poker, Vibratory, Hand-held	CNP 170 ^[1]	113	1	50%	110
Generator, Silenced	CNP 102 ^[1]	100	1	100%	100
Bar Bender and Cutter (Electric)	CNP 021 ^[1]	90	1	100%	90
Breaker, Hand-held, Mass <= 10kg	CNP 023 ^[1]	108	1	100%	108
Concrete Mixer	CNP 045 ^[1]	96	1	100%	96
Concrete Pump	CNP 047 ^[1]	109	1	100%	109
Lorry	CNP 141 ^[1]	112	1	50%	109
Total SWL (Activity)					117

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Powered Mechanical Equipment (PME)	Reference	SWL, dB(A)	No. of Units	% of Utilization	Sub-total SWL, dB(A)
B3.4 Drainage & Pavement Construction					
Excavator	CNP 081 ^[1]	112	1	30%	107
Loader	CNP 081 ^[1]	112	1	30%	107
Lorry	CNP 141 ^[1]	112	1	30%	107
Mobile Crane	CNP 048 ^[1]	112	1	30%	107
Asphalt Paver	CNP 004 ^[1]	109	2	100%	112
Roller, Vibratory	CNP 186 ^[1]	108	2	100%	111
Generator, Silenced	CNP 102 ^[1]	100	2	100%	103
Paint Line Marker	CNP 161 ^[1]	90	2	80%	92
Total SWL (Activity)					117
<i>Construction of WHC Flyover within WHC Area</i>					
C1 - Site Clearance / Set-up / Plant Mobilization					
Breaker, Excavator Mounted (Pneumatic)	CNP 027 ^[1]	122	1	30%	117
Loader	CNP 081 ^[1]	112	1	30%	107
Lorry	CNP 141 ^[1]	112	1	30%	107
Mobile Crane	CNP 048 ^[1]	112	1	30%	107
Total SWL (Activity)					118
C2 - UU Diversion Works					
Excavator	CNP 081 ^[1]	112	1	30%	107
Loader	CNP 081 ^[1]	112	1	30%	107
Lorry	CNP 141 ^[1]	112	1	30%	107
Mobile Crane	CNP 048 ^[1]	112	1	30%	107
Total SWL (Activity)					113
C3 - Construction Works					
C3.1 Pier Construction					
Concrete Lorry Mixer	CNP 044 ^[1]	109	1	30%	104
Dump Truck	[2]	105	1	30%	100
Backhoe	CNP 081 ^[1]	112	1	50%	109
Generator, Silenced	CNP 102 ^[1]	100	1	100%	100
Mobile Crane	CNP 048 ^[1]	112	1	30%	107
Poker, Vibratory, Hand-held	CNP 170 ^[1]	113	3	30%	113
Saw, Circular, Wood	CNP 201 ^[1]	108	1	30%	103
Bar Bender and Cutter (Electric)	CNP 021 ^[1]	90	1	30%	85
Breaker, Hand-held, Mass <= 10kg	CNP 023 ^[1]	108	1	30%	103
Concrete Mixer	CNP 045 ^[1]	96	1	30%	91
Concrete Pump	CNP 047 ^[1]	109	1	30%	104
Lorry	CNP 141 ^[1]	112	1	30%	107
Total SWL (Activity)					117
C3.2 Deck Construction					
Concrete Lorry Mixer	CNP 044 ^[1]	109	1	80%	108
Mobile Crane	CNP 048 ^[1]	112	1	70%	110
Poker, Vibratory, Hand-held	CNP 170 ^[1]	113	1	50%	110
Generator, Silenced	CNP 102 ^[1]	100	1	100%	100
Bar Bender and Cutter (Electric)	CNP 021 ^[1]	90	1	100%	90
Breaker, Hand-held, Mass <= 10kg	CNP 023 ^[1]	108	1	100%	108
Concrete Mixer	CNP 045 ^[1]	96	1	100%	96
Concrete Pump	CNP 047 ^[1]	109	1	100%	109
Lorry	CNP 141 ^[1]	112	1	50%	109
Total SWL (Activity)					117
C3.3 Drainage & Pavement Construction					
Excavator	CNP 081 ^[1]	112	1	30%	107
Loader	CNP 081 ^[1]	112	1	30%	107
Lorry	CNP 141 ^[1]	112	1	30%	107
Mobile Crane	CNP 048 ^[1]	112	1	30%	107
Asphalt Paver	CNP 004 ^[1]	109	2	100%	112
Roller, Vibratory	CNP 186 ^[1]	108	2	100%	111
Generator, Silenced	CNP 102 ^[1]	100	2	100%	103
Paint Line Marker	CNP 161 ^[1]	90	2	80%	92
Total SWL (Activity)					117

Notes:

[1] Reference made to Table 3 of EPD's *Technical Memorandum on Noise from Construction Work Other Than Percussive Piling*.

[2] Reference made to EPD's *Sound Power Levels of Other Commonly Used PME*.