

APPENDIX 4.1

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**Construction Plant  
Inventory and SWLs**

**Job Title :** WENT Landfill Extension EIA

**Heading :** Plant Inventory

Landfill Site Phase I Development				SWL of Single PME	Total SWL
Activity	Months	PME	Units*		
				Unmitigated	Unmitigated
Site clearance	Jan 2016 - Dec 2016	Excavator	6	112	120
		Mower	2	112	115
		Lorry	6	112	120
		Crane truck	2	112	115
				<b>118</b>	<b>124</b>
Excavation & Site formation - installation of soil nail - excavation works on slopes - drainage works	Jul 2016 - Mar 2017	Excavator	6	112	120
		Compactor	6	105	113
		Bulldozer	6	115	123
		Generator, silenced	8	100	109
		Crane truck	2	112	115
		Dump truck	6	117	125
		Mower	2	112	115
		Lorry	3	112	117
		Hydraulic breaker	6	122	130
		Water pump	6	103	111
		<b>125</b>	<b>132</b>		
Installation of liner, leachate & LFG collection system	Jan 2017 - Dec 2018	Excavator	2	112	115
		Compactor	2	105	108
		Generator, silenced	2	100	103
		Wheel loader	2	112	115
		Sweeper	2	107	110
		Roller	2	108	111
		Crane truck	2	112	115
		Dump truck	2	117	120
		Lorry	30	112	127
				<b>121</b>	<b>128</b>
Construction of Lechate Treatment Plant	Jan 2016 - Dec 2018	Mobile crane	3	112	117
		Excavator	3	112	117
		Air compressor	3	104	109
		Concrete truck	3	109	114
		Vibrator	10	113	123
		Generator, silenced	3	100	105
		<b>118</b>	<b>125</b>		

Unit\* - no of vehicle per peak half hour

**Job Title :** WENT Landfill Extension EIA  
**Heading :** Plant Inventory

Landfill Site Phase II Development				SWL of Single PME	Total SWL
Activity	Months	PME	Units*		
				Unmitigated	Unmitigated
Site clearance	Jan 2017 - Dec 2017	Excavator	3	112	117
		Mower	2	112	115
		Lorry	3	112	117
		Crane truck	2	112	115
				<b>118</b>	<b>122</b>
Excavation & Site formation - installation of soil nail - excavation works on slopes - drainage works	Oct 2017 - Jun 2019	Excavator	5	112	119
		Compactor	5	105	112
		Bulldozer	6	115	123
		Generator, silenced	8	100	109
		Crane truck	2	112	115
		Dump truck	6	117	125
		Mower	2	112	115
		Lorry	3	112	117
		Hydraulic breaker	6	122	130
		Water pump	6	103	111
				<b>125</b>	<b>132</b>
Installation of liner, leachate & LFG collection system	Apr 2018 - Dec 2019	Excavator	2	112	115
		Compactor	2	105	108
		Generator, silenced	9	100	110
		Wheel loader	2	112	115
		Sweeper	2	107	110
		Roller	2	108	111
		Crane truck	2	112	115
		Dump truck	2	117	120
		Lorry	30	112	127
				<b>121</b>	<b>129</b>

Unit\* - no of vehicle per peak half hour

**Job Title :** WENT Landfill Extension EIA  
**Heading :** Plant Inventory

Landfill Site Phase III Development				SWL of Single PME	Total SWL
Activity	Months	PME	Units*		
				Unmitigated	Unmitigated
Site clearance	Jan 2018 - Dec 2018	Excavator	3	112	117
		Mower	2	112	115
		Lorry	3	112	117
		Crane truck	2	112	115
				<b>118</b>	<b>122</b>
Excavation & Site formation - installation of soil nail - excavation works on slopes - drainage works	Oct 2018 - Jun 2020	Excavator	5	112	119
		Compactor	5	105	112
		Bulldozer	6	115	123
		Generator, silenced	8	100	109
		Crane truck	2	112	115
		Dump truck	6	117	125
		Mower	2	112	115
		Lorry	3	112	117
		Hydraulic breaker	6	122	130
		Water pump	6	103	111
				<b>125</b>	<b>132</b>
Installation of liner, leachate & LFG collection system	Apr 2019 - Dec 2020	Excavator	2	112	115
		Compactor	2	105	108
		Generator, silenced	9	100	110
		Wheel loader	2	112	115
		Sweeper	2	107	110
		Roller	2	108	111
		Crane truck	2	112	115
		Dump truck	2	117	120
		Lorry	30	112	127

Unit\* - no of vehicle per peak half hour

**Job Title :** WENT Landfill Extension EIA  
**Heading :** Plant Inventory

Landfill Site Phase IV Development				SWL of Single PME	Total SWL
Activity	Months	PME	Units*		
				Unmitigated	Unmitigated
Site clearance	Jan 2020 - Dec 2020	Excavator	3	112	117
		Mower	2	112	115
		Lorry	3	112	117
		Crane truck	2	112	115
				<b>118</b>	<b>122</b>
Excavation & Site formation - installation of soil nail - excavation works on slopes - drainage works	Oct 2020 - Jun 2022	Excavator	5	112	119
		Compactor	5	105	112
		Bulldozer	6	115	123
		Generator, silenced	8	100	109
		Crane truck	2	112	115
		Dump truck	6	117	125
		Mower	2	112	115
		Lorry	3	112	117
		Hydraulic breaker	6	122	130
		Water pump	6	103	111
				<b>125</b>	<b>132</b>
Installation of liner, leachate & LFG collection system	Apr 2021 - Dec 2022	Excavator	2	112	115
		Compactor	2	105	108
		Generator, silenced	9	100	110
		Wheel loader	2	112	115
		Sweeper	2	107	110
		Roller	2	108	111
		Crane truck	2	112	115
		Dump truck	2	117	120
		Lorry	30	112	127
				<b>121</b>	<b>129</b>

Unit\* - no of vehicle per peak half hour

**Job Title :** WENT Landfill Extension EIA

**Heading :** Plant Inventory

Landfill Site Phase V Development				SWL of Single PME	Total SWL
Activity	Months	PME	Units*		
				Unmitigated	Unmitigated
Site clearance	Jan 2021 - Dec 2021	Excavator	3	112	117
		Mower	2	112	115
		Lorry	3	112	117
		Crane truck	2	112	115
				<b>118</b>	<b>122</b>
Excavation & Site formation - installation of soil nail - excavation works on slopes - drainage works	Oct 2021 - Jun 2023	Excavator	5	112	119
		Compactor	5	105	112
		Bulldozer	6	115	123
		Generator, silenced	8	100	109
		Crane truck	2	112	115
		Dump truck	6	117	125
		Mower	2	112	115
		Lorry	3	112	117
		Hydraulic breaker	6	122	130
		Water pump	6	103	111
				<b>125</b>	<b>132</b>
Installation of liner, leachate & LFG collection system	Apr 2022 - Dec 2023	Excavator	2	112	115
		Compactor	2	105	108
		Generator, silenced	9	100	110
		Wheel loader	2	112	115
		Sweeper	2	107	110
		Roller	2	108	111
		Crane truck	2	112	115
		Dump truck	2	117	120
		Lorry	30	112	127

Unit\* - no of vehicle per peak half hour

Job Title : WENT Landfill Extension EIA

Heading : Plant Inventory

Landfill Site Phase VI Development				SWL of Single PME	Total SWL
Activity	Months	PME	Units*		
				Unmitigated	Unmitigated
Site clearance	Jan 2022 - Dec 2022	Excavator	3	112	117
		Mower	2	112	115
		Lorry	3	112	117
		Crane truck	2	112	115
					<b>118</b>
Excavation & Site formation - installation of soil nail - excavation works on slopes - drainage works	Oct 2022 - Jun 2024	Excavator	5	112	119
		Compactor	5	105	112
		Bulldozer	6	115	123
		Generator, silenced	8	100	109
		Crane truck	2	112	115
		Dump truck	6	117	125
		Mower	2	112	115
		Lorry	3	112	117
		Hydraulic breaker	6	122	130
		Water pump	6	103	111
					<b>125</b>
Installation of liner, leachate & LFG collection system	Apr 2023 - Dec 2024	Excavator	2	112	115
		Compactor	2	105	108
		Generator, silenced	9	100	110
		Wheel loader	2	112	115
		Sweeper	2	107	110
		Roller	2	108	111
		Crane truck	2	112	115
		Dump truck	2	117	120
		Lorry	30	112	127
					<b>121</b>

Unit\* - no of vehicle per peak half hour

**Job Title : WENT Landfill Extension EIA**

**Heading : Plant Inventory**

Restoration				SWL of Single PME	Total SWL
Activity	Months	PME	Units*		
				Unmitigated	Unmitigated
Installation of Final Capping	Jan 2027 - Dec 2030	Excavator	5	112	119
		Compactor	5	105	112
		Bulldozer	6	115	123
		Generator, silenced	8	100	109
		Crane truck	2	112	115
		Dump truck	6	117	125
		Mower	2	112	115
		Lorry	3	112	117
		Water pump	6	103	111
Planting & Landscaping	Jan 2028 - Dec 2032	Excavator	2	112	115
		Compactor	2	105	108
		Generator, silenced	9	100	110
		Crane truck	2	112	115
				<b>116</b>	<b>119</b>

Unit\* - no of vehicle per peak half hour



Job Title : WENT Landfill Extension EIA

Heading : Plant Inventory

Existing Landfill Restoration and Aftercare Period				SWL of Single PME	Total SWL
Activity	Months	PME	Units*		
				Unmitigated	Unmitigated
Installation of Final Capping	Oct 2018 - Nov 2020	Excavator	6	112	120
		Compactor	6	105	113
		Generator, silenced	9	100	110
		Wheel loader	3	112	117
		Sweeper	3	107	112
		Roller	3	108	113
		Crane truck	3	112	117
		Dump truck	3	117	122
		Lorry	15	112	124
Planting & Landscaping	Oct 2020 - Sept 2022	Excavator	6	112	120
		Compactor	6	105	113
		Generator, silenced	9	100	110
		Crane truck	3	112	117
Advanced 5 ha compensatory planting	Oct 2020 - Sept 2024	Excavator	6	112	120
		Compactor	6	105	113
		Generator, silenced	9	100	110
		Crane truck	3	112	117

Unit\* - no of vehicle per peak half hour

**Job Title :** WENT Landfill Extension EIA

**Heading :** Plant Inventory

Nim Wan Road Realignment Works				SWL of Single PME	Total SWL
Activity	Months	PME	Units*		
				Unmitigated	Unmitigated
Construction of elevated Road	Jan 2018 - Dec 2019	Excavator	2	112	115
		Mobile crane	2	112	115
		Roller	1	108	108
		Bored piling machine	2	115	118
		Water pump	2	103	106
		Dump truck	4	117	123
		Lorry	8	112	121
		Generator, silenced	2	100	103
		Paver	1	109	109
		Concrete truck	2	109	112
		Vibrator	5	113	120
		Crane truck	2	112	115
Construction of at-grade road	Jan 2018 - Dec 2019	Excavator	8	112	121
		Dump truck	4	117	123
		Compactor	2	105	108
		Roller	2	108	111
		Hydraulic breaker	8	122	131
		Paver	1	109	109
		Lorry	8	112	121
		Concrete truck	2	109	112
		Vibrator	5	113	120
		Generator, silenced	1	100	100

Unit\* - no of vehicle per peak half hour



Ove Arup & Partners  
Hong Kong

Job Title : WENT Landfill Extension EIA

Heading : Plant Inventory

Landfill Site - Fish Pond Development within existing WENT				SWL of Single PME	Total SWL
Activity	Months	PME	Units*		
				Unmitigated	Unmitigated
Excavation & Site formation	Apr 2022 - Mar 2023	Excavator	2	112	115
		Compactor	2	105	108
		Bulldozer	2	115	118
		Generator, silenced	2	100	103
		Dump truck	2	117	120
		Lorry	2	112	115
		Hydraulic breaker	4	122	128
		Concrete truck	2	109	112
		Vibrator	5	113	120
		Water pump	4	103	109
					<b>125</b>

Unit\* - no of vehicle per peak half hour

Project : WENT Landfill Extension EIA  
 Title : SWLs of PMEs

PME	% Operation	Corr. dB(A)	Unmitigated SWLs					Quiet Plant				Mitigated Scenario					
			ID	Description	Power rating Size, wieght	PME SWL, dB(A)	Unmitigated SWL, dB(A)	ID	Power rating Size, wieght	PME SWL, dB(A)	Quiet Plant SWL, dB(A)	Enclosure, dB(A)	Barrier, dB(A)	Acoustic Mat, dB(A)	Total Reduction, dB(A)	Mitigated SWL, dB(A)	
Air compressor	100	0	CNP003	Air compressor, air flow > 30m3/min	-	104	104	C7-44	above 34m3/n	103	103	-10				-10	93
Paver	100	0	CNP004	Asphalt paver	-	109	109	C8-24	90kW, 13t	101	101					0	101
Hydraulic breaker	100	0	CNP028	Breaker, excavator mounted (hydraulic)	-	122	122	C8-13	73kW, 200kg	110	110		0			0	110
Bulldozer	100	0	CNP030	Bulldozer	-	115	115				115					0	115
Concrete truck	100	0	CNP044	Concrete lorry mixer	-	109	109				109					0	109
Concrete pump	100	0	CNP047	Concrete pump, stationary / lorry mounted	-	109	109	C6-34	100kW	107	107					0	107
Mobile crane	100	0	CNP048	Crane, mobile / barge mounted (diesel)	-	112	112	C7-112	58kW, 34t	102	102					0	102
Crane truck	100	0	CNP048	Crane, mobile / barge mounted (diesel)	-	112	112				112						
Compactor	100	0	CNP050	Compactor, vibratory	-	105	105				105					0	105
Dump truck	100	0	CNP067	Dump truck	-	117	117	C3-60	24t	104	104					0	104
Excavator	100	0	CNP081	Excavator / loader, wheeled / tracked	-	112	112	C3-35	45kW	106	106					0	106
Wheel loader	100	0	CNP 081	Excavator / loader, wheeled / tracked	-	112	112										
Backactor	100	0	CNP081	Excavator / loader, wheeled / tracked	-	112	112	C3-35	45kW	106	106					0	106
Generator, silenced	100	0	CNP102	Generator, silenced, 75dB(A) at 7m	-	100	100				100	-10				-10	90

Project : WENT Landfill Extension EIA  
 Title : SWLs of PMEs

PME	% Operation	Corr. dB(A)	Unmitigated SWLs					Quiet Plant			Mitigated Scenario						
			ID	Description	Power rating Size, wieght	PME SWL, dB(A)	Unmitigated SWL, dB(A)	ID	Power rating Size, wieght	PME SWL, dB(A)	Quiet Plant SWL, dB(A)	Enclosure, dB(A)	Barrier, dB(A)	Acoustic Mat, dB(A)	Total Reduction, dB(A)	Mitigated SWL, dB(A)	
Bored piling machine	100	0	CNP164	Piling, large dia bored, grab & chisel	-	115	115				115				0	115	
Vibrator	100	0	CNP170	Poker, vibratory, hand held	-	113	113	C6-32	-	100	100				0	100	
Roller	100	0	CNP186	Roller, vibratory	-	108	108				108					0	108
Sweeper	100	0	CNP188	Road Sweeper	-	107	107				107					0	107
Lorry	100	0	CNP 141	Lorry	-	112	112										
Water pump	100		CNP282	Water pump	-	103	103										
Mower	100		CNP056	Mower		112	112										