Construction Plant Inventory - Mitigated Scenario Work Type 1 - Construction of Sewer (Open Cut Method)

Project Specific PME Item	Reference	dB(A)	Items	On-time %	On-time Cor.	Barrier Cor.	Total SWL, dB(A)	Total SWL, dB(A)
Stage 1 - Breaking up of road surface								
Breaker, hand-held, mass>10kg and <20kg	CNP 024	108	1	30%	-5	-10	93	-
Generator	BS C4/77	88	1	100%	0	-10	78	-
						Total	93.0	0.0
Stage 2 - Excavation of soil material								
Backhoe (mini)	*EPD-GN	94	1	100%	0	-5	89	-
Generator	BS C4/77	88	1	100%	0	-10	-	78
Submersible Pump	CNP 283	85	1	100%	0	-10	-	75
						Total	89.0	80.0
Stage 3 - Steel fixing & concreting of manholes								
Bar bender and cutter (electric)	CNP 021	90	- 1	20%	-7	-10	-	73
Generator	BS C4/77	88	1	100%	0	-10	78	78
Poker, vibratory, hand-held	BS C4/34	97	1	50%	-3	-10	84	-
						Total	85.0	79.0
Stage 4 - Laying of bedding material								
Generator	BS C4/77	88	- 1	100%	0	-10	-	78
Poker, vibratory, hand-held	BS C4/34	97	1	100%	0	-10	-	87
	•					Total	0.0	88.0
Stage 5 - Backfilling and soil compaction								
Vibratory compactor	QPME							
	EPD 00055	102	1	50%	-3	-10	89	-
						Total	89.0	0.0
Stage 6 - Reinstatement of road surface	BS C4/34	97	1 1	50%	-3	-10	84	
Poker, vibratory_hand-held Generator	BS C4/77	88	1	100%	- 0	-10	78	-
Denerator	D3 04///	30		10070		Total	85.0	0.0

Max Noise Level 93.0

Work Type 2 - Construction of Sewer (Trenchless Method)

Project Specific PME Item	Reference	dB(A)	Items	On-time %	On-time Cor.	Barrier Cor.	Total SWL, dB(A)	Total SWL, dB(A)	Total SWL, dB(A)	Total SWL, dB(A)
Stage 1 - Excavation of Pits							1000 0100, 000, 0		1000 0110, 000, 0	
Piling Rig	BS C3/14	111	1	100%	0	-10	101			
Hoist (electric)	CNP 122	95	- 1	100%	0	-10	85		-	-
Breaker, excavator mounted (hydraulic)	BS C9/12	113	- 1	100%	0	-5	-	108		
Excavator	BS C4/65	99	1	100%	0	-5	-		94	-
Dumper (7 t)	BS C4/3	104	1	100%	0	-5	-	-	99	-
Generator	BS C4/77	88	- 1	100%	0	-10	78	-	78	-
Submersible Pump	CNP 283	85	2	100%	0	-10	-		78	-
Grout Mixer	*EPD-GN	90	1	100%	0	-10	-	-	-	80
Grout Pump	*EPD-GN	105	1	100%	0	-10	-		-	95
•			•	•		Total	101.0	108.0	100.0	95.0
Stage 2 - Pipe Laid by Segmental Excavation										
Rock Drill, hand-held (pneumatic)	CNP 183	116	1	100%	0	-10	106	-	-	-
Air Compressor	BS D7/24	95	- 1	100%	0	-10	85	-	-	-
Generator	BS C4/77	88	- 1	100%	0	-10	78	-	-	-
Dumper (7 t)	BS C4/3	104	1	70%	-2	-5	97	-	-	-
Hoist (electric)	CNP 122	95	- 1	70%	-2	-10	83	-	-	-
Ventilation Fan	CNP 241	108	2	100%	0	-10	101	-	-	-
Grout Mixer	*EPD-GN	90	1	100%	0	-10	80	-	-	-
Grout Pump	*EPD-GN	105	- 1	100%	0	-10	95	-	-	-
•						Total	108.0	0.0	0.0	0.0
Stage 3 - Steel fixing and concreting of manholes										
Bar bender and cutter (electric)	CNP 021	90	1	20%	-7	-10	73		-	-
Generator	BS C4/77	88	1	100%	0	-10	-	78		
Poker vibratory hand-held	BS C4/34	97	1	20%	-7	-10	-	80	-	-
						Total	73.0	82.0	0.0	0.0
Stage 4 - Reinstatement of road surface with Bi	ricks					Total	0.0	0.0	0.0	0.0
NO I IVIL IIIVOIVOU						IOtal	0.0	0.0	0.0	0.0

Project Specific PME Item	Reference	dB(A)	Items	On-time %	On-time Cor.	Barrier Cor.	Total SWL, dB(A)	Total SWL, dB(A)
Stage 1 - Breaking up of road surface								
Generator	BS C4/77	88	1	100%	0	-10	78	-
Breaker, hand-held, mass>10kg and <20kg	CNP 024	108	1	30%	-5	-10	93	-
						Total	93.0	0.0
Stage 2 - Excavation of soil material								
Backhoe (mini)	CNP 082	94	- 1	100%	0	-5	89	-
Generator	BS C4/77	88	1	100%	0	-10	-	78
Submersible pump (electric)	CNP 283	85	1	100%	0	-10	-	75
						Total	89.0	80.0
Stage 3 - Removal of existing sewers and laying	g of new sewers							
Backhoe (mini)	CNP 082	94	- 1	100%	0	-5	89	-
		•				Total	89.0	0.0
Stage 4 - Steel fixing and concreting of manhol	es						•	
Bar Bender and cutter (electirc)	CNP 021	90	1	20%	-7	-10	73	-
Generator	BS C4/77	88	1	100%	0	-10	-	78
Poker, vibratory, hand-held	BS C4/34	97	-1	50%	-3	-10		84
						Total	73.0	85.0
Stage 5 - Laying of bedding material								
Poker, vibratory, hand-held	BS C4/34	97	1	100%	0	-10	87	-
Generator	BS C4/77	88	1	100%	0	-10	78	-
						Total	88.0	0.0
Stage 6 - Backfilling and soil compaction								
/ibratory compactor	QPME							1
,	EPD 00055	102	1	50%	-3	-10	89	-
						Total	89.0	0.0
stage 7 - Reinstatement of road surface								
Poker, vibratory, hand-held	BS C4/34	97	1	50%	-3	-10	84	-
Generator	BS C4/77	88	1	100%	0	-10	78	-
	•	•				Total	85.0	0.0

Max Noise Level

Work Type 6 - Rehabilitation of Existing Sewers

Project Specific PME Item	Reference	dB(A)	Items	On-time %	On-time Cor.	Barrier Cor.	Total SWL, dB(A)				
Stage 1 - Rehabilitation of Existing Sewers											
Generator	BS C4/77	88	1	100%	0	-10	78				
Submersible Pump	CNP 283	85	1	100%	0	-10	75				
Winch (electric)	CNP 262	95	1	100%	0	-10	85				
Grinder, hand held (electric)	CNP 065	98	1	100%	0	-10	88				
Air Compressor	BS D7/24	95	1	100%	0	-10	85				
					Total		91.0				

Max Noise Level 91.0

Remarks:

**EPD-GN-EPD Guidance Note on Sound Power Level on Other Commonly Use PME (http://www.epd.gov.hk/lepd/english/application_for_licences/guidance/files/Other/SW/Le.pdf

Due to space constraint, concrete will be delivered manually from the temporary working area for the construction of trurk sever, sever and rising main; and upgrading of existing sewer in the villages. Certain PMEs will be operated on site for a short period of time for the proposed works tasks. A 20, 30 and 50 percentage on-time has been given accordingly.

Work Type 5 - Upgrading of Cheung Chau Sewage Treatment Works

	Reference	dB(A)	Items	On-time %	On-time Cor.	Barrier Cor.	Total SWL, dB(A)	Total SWL, dB(A)	Total SWL, dB(A)
Stage 1 & 2 - Demolish the abandoned filter beds &									
Breaker, excavator mounted (hydraulic)	BS C9/12	113	1	100%	0	0	113		
Dumper (7 t)	BS C4/3	104	1	100%	0	0	104	-	-
								-	
Excavator	BS C4/65	99	1	100%	0	0	99	-	-
Generator	BS C4/77	88	1	100%	0	0	88	-	-
						Total	114.0	0.0	0.0
Stage 3 - Construction and upgrading of treatment f	acilities								
Piling, grab and chisel	CNP 164	115	1	100%	0	0	115	_	-
Piling, oscillator	CNP 165	115	1	100%	0	0	115	-	-
Piling, reverse circulation drill	CNP 166	100	1	100%	0	0	100	_	
Air Compressor	BS D7/24	95	1	100%	0	0	95	-	-
								-	-
Welding Machine	*AEIAR 2	78	1	60%	-2	0	76	-	-
Tracked Mobile Crane	BS C4/50	99	1	100%	0	0	99	99	99
Generator	BS C4/77	88	1	100%	0	0	88	88	88
Breaker, excavator mounted (hydraulic)	BS C9/12	113	1	100%	0	0	-	113	-
Excavator	BS C4/65	99	- 1	100%	0	0	-	99	-
Dumper (7 t)	BS C4/3	104	1	60%	-2	0	102	102	-
Bar Bender and Cutter	CNP 021	90	1	20%	-7	0		- 102	83
Concrete Pump	BS C3/25	106	2	100%	0	0	-	-	109
Derrick Barge	CNP 061	104	1	100%	0	0	-	-	104
Saw, circular, wood	CNP 201	108	1	100%	0	0	-	-	108
Poker, vibratory, handheld	BS C4/34	97	2	100%	0	0	-	-	100
Submersible Pump	CNP 283	85	1	100%	0	0		85	-
	•					Total	118.0	114.0	113.0
Stage 4 - Demolish existing air blower room and cor	etwetten of the new n	umn har				TOTAL			
	BS C4/50	99	1	100%	0	0	99	99	
Crane, mobile mounted									-
Generator	BS C4/77	88	1	100%	0	0	88	88	-
Breaker, excavator mounted (hydraulic)	BS C9/12	113	1	100%	0	0	113		-
Excavator	BS C4/65	99	1	100%	0	0	99		-
Dumper (7 t)	BS C4/3	104	1	100%	0	0	104		-
Bar Bender and Cutter	CNP 021	90	1	20%	-7	0	-	83	-
Concrete Pump	BS C3/25	106	1	100%	0	0	-	106	-
Saw, circular, wood	CNP 201	108	1	100%	0	0		108	
	CNP 061	104	1	100%	0	0	-		-
Derrick Barge				100%		0	-	104	-
Poker, vibratory, handheld	BS C4/34	97	2	100%	0		-	100	-
						Total	114.0	112.0	0.0
Stage 5 - Demolish of the primary sediment tanks an	d sludge digestor, lay	ng of ne	w pipew	orks					
Breaker, excavator mounted (hydraulic)	BS C9/12	113	1	100%	0	0	113	_	
								-	-
	BS C4/65	99	1	100%	0	0	99	-	-
Excavator		99 88	1			0	99	-	-
Excavator Generator	BS C4/77	88	1	100% 100%	0	0	99 88	- 88	-
Excavator Generator Dumper (7 t)	BS C4/77 BS C4/3			100%		0	99	-	-
Excavator Generator Dumper (7 t)	BS C4/77 BS C4/3 QPME	88 104	1	100% 100% 60%	0 -2	0 0	99 88	- 88 -	-
Excavator Generator	BS C4/77 BS C4/3	88	1	100% 100%	0	0 0 0	99 88 102	- 88 - 101	-
Excavator Generator Dumper (7 t) Compactor, vibratory	BS C4/77 BS C4/3 QPME EPD 00055	88 104 102	1 1	100% 100% 60% 80%	-1	0 0	99 88	- 88 -	-
Excavator Generator Dumper (7 t) Compactor, vibratory Stage 6 - Construction of the new storm tanks and v	BS C4/77 BS C4/3 QPME EPD 00055	88 104 102 isting pro	1 1	100% 100% 60% 80%	0 -2 -1	0 0 0 0 Total	99 88 102 - 113.0	- 88 - 101	-
Exeavalor Generator Dumper (7 t) Compactor, vibratory Stage 6 - Construction of the new storm tanks and v Piling, grab and chisel	BS C4/77 BS C4/3 QPME EPD 00055 Orkshop, demolish ex CNP 164	88 104 102 isting pro	1 1	100% 100% 60% 80% y treatment word 100%	0 -2 -1 rks	0 0 0 0 Total 0	99 88 102 - 113.0	- 88 - 101	-
Excavator Generator Dumper (7 t) Compactor, vibratory Stage 6 - Construction of the new storm tanks and v Pling, grap and chisel	BS C4/77 BS C4/3 QPME EPD 00055 vorkshop, demolish ex CNP 164 CNP 165	88 104 102 isting pro 115 115	1 1 1 eliminar	100% 100% 60% 80% y treatment wor 100% 100%	-1 rks 0 0	0 0 0 0 Total	99 88 102 - 113.0	- 88 - 101	-
Excavator Generator Dumper (7 t) Compactor, vibratory Stage 6 - Construction of the new storm tanks and v Filing, grab and chisel Filing, coellator Filing, reverse circulation of till	BS C4/77 BS C4/3 QPME EPD 00055 Orkshop, demolish ex CNP 164 CNP 165 CNP 166	88 104 102 isting pr 115 115 100	1 1	100% 100% 60% 80% y treatment wol 100% 100%	-1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -	0 0 0 0 Total	99 88 102 - 113.0 115 115	- 88 - 101 101.0	0.0
Exeavator Generator Dumper (7 t) Compactor, vibratory Stage 6 - Construction of the new storm tanks and v Filing, arga and chisel Filing, ascellator Filing, ascellator	BS C4/77 BS C4/3 QPME EPD 00055 Vorkshop, demolish ex CNP 164 CNP 165 CNP 166 BS D7/24	88 104 102 isting pr 115 115 1100 95	1 1 1 eliminar	100% 100% 60% 80% y treatment wol 100% 100% 100%	-1 -1 rks 0 0 0 0 0 0 0 0	0 0 0 Total	99 88 102 - 113.0 115 115 110 95	- 88 - 101 101.0	- 0.0
Exeavator Senerator Journper (7 t) Compactor, vibratory Stage 6 - Construction of the new storm tanks and v Filing, grab and chisel Filing, consistor Filing, reverse circulation drill Air Compressor Wedding Machine	BS C4/77 BS C4/3 QPME EPD 00055 **rorkshop, demolish ex CNP 164 CNP 165 CNP 166 BS D7/24 **AE/AR 2	88 104 102 isting pri 115 115 1100 95 78	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	100% 100% 60% 80% 80% 100% 100% 100% 60%	0 -2 -1 -1 rks 0 0 0 0 0 0 -2	0 0 0 Total 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	99 88 102 - 113.0 - 115 115 100 95 76	- 88 - 101 101.0	
Exeavator Jenerator Jenerator Compactor, vibratory Stage 6 - Construction of the new storm tanks and v ling, grab and chisel ling, scallator ling, scallator Welding Machine Tane, mobile mounted	BS C4/77 BS C4/3 BS C4/3 GPME EPD 00055 CONP 164 CNP 165 CNP 166 BS D7/24 *AEIAR 2 BS C4/50	88 104 102 isting pr 115 115 100 95 78 99	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	100% 100% 60% 80% y treatment wo 100% 100% 100% 100% 60%	0 -2 -1 -1 rks 0 0 0 0 0 0 -2 0 0	0 0 0 0 Total 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	99 88 102 113.0 115 115 100 95 76 99	- 88 101 101.0	- 0.0
Exeavator Senerator Dumper (7 t) Compactor, vibratory Stage 6 - Construction of the new storm tanks and valing, grab and chisel Pling, grab and chisel Pling, reverse crudeton drill ir Compressor Vedding Machine zane, mobile mounted denerator	BS C4/77 BS C4/3 QPME EPD 00055 **rorkshop, demolish ex CNP 164 CNP 165 CNP 166 BS D7/24 **AEJAR 2 BS C4/50 BS C4/77	88 104 102 isting pr 115 115 100 95 78 99 88	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	100% 100% 60% 80% y treatment wo 100% 100% 100% 100% 60% 100%	0 -2 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1	0 0 0 0 Total 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	99 88 102 - 113.0 115 115 100 95 76 99 88	- 88 101 101.0 	- - 0.0
Excavator Generator Dumper (7 t) Compactor, vibratory Stage 6 - Construction of the new storm tanks and v Filing, grap and chisel Filing, scellator Filing, scellator Welding Machine Tane, mobile mounted Generator Generator Fireaker excavator mounted (flydraulin)	BS C4/77 BS C4/3 BS C4/3 BS C4/3 QPME EPD 00055 Orkshop, demolish ex CNP 164 CNP 165 CNP 166 BS D7/24 *AEJAR 2 BS C4/50 BS C4/75 BS C5/72 BS C9/72	88 104 102 isting pr 115 115 100 95 78 99 88 113	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	100% 100% 60% 80% 80% y treatment wo 100% 100% 100% 60% 100% 100% 100%	0 -2 -1 -1 -1 -0 -0 -0 -0 -2 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0	0 0 0 0 Total 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	99 88 102 113.0 115 115 100 95 76 99	- 88 101 101.0 	
Excavator Generator Dumper (7 t) Compactor, vibratory Stage 6 - Construction of the new storm tanks and vibriling, again and chisel Pling, graph and chisel Pling, scellator Filing, reverse circulation drill Air Compressor Wedding Machine Carner, mobile mounted Generatior Breaker excavator mounted (hydraulic) Excavator	BS C4/77 BS C4/3 BS C4/3 BS C4/3 CPME EPD 00055 **Orkshop, demolish ex CNP 164 CNP 165 CNP 166 BS D7/24 **AEWR 2 BS C4/50 BS C4/77 BS C9/12 BS C4/65 BS C5/65	88 104 102 isting pr 115 115 100 95 78 99 88 113 99	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	100% 100% 60% 80% y treatment wo 100% 100% 100% 100% 100% 100% 100%	0 -2 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1	0 0 0 0 Total 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	99 88 102 - 113.0 115 116 100 95 76 99 88	- 88 - 101 101,0 	
Exeavator Generator Dumper (7 t) Compactor, vibratory Stage 6 - Construction of the new storm tanks and v Filing, arginator Filing, ascellator Filing, ascellat	BS C4/77 BS C4/3 BS C4/3 BS C4/3 CPME EPD 00055 EPD 00055 CNP 164 CNP 165 BS D7/24 *AEWA 2 BS C4/50 BS C4/77 BS C9/12 BS C4/65	88 104 102 isting pr 115 115 100 95 78 99 88 113 99 104	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	100% 100% 60% 80% y treatment wo 100% 100% 100% 100% 100% 100% 100% 100	0 -2 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1	0 0 0 0 Total 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	99 88 102 - 113.0 115 115 110 95 76 99 99	- 88 101 101.0	
Excavator Senerator Jumper (7 t) Compactor, vibratory Stage 6 - Construction of the new storm tanks and v Pling, gap and chisel Pling, severate Pling, severate Victoria (Service of the new storm tanks and v Pling, severate Pling, severate Victoria (Service of the new storm tanks and v Pling, severate Victoria (Service of the new storm tanks and v Pling, severate	BS C4/77 BS C4/3 GPME EPD 00055 rorkshop, demolish ex CNP 164 CNP 165 CNP 165 BS 07/24 **AERR 2 BS C4/50 BS C4/50 BS C4/50 BS C5/4/5 BS C6/6/5 BS C6/6/5 BS C6/6/5 BS C6/6/5 BS C4/6/5 BS C4/6/5	88 104 102 isting pr 115 115 110 95 78 99 88 113 99 104	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	100% 100% 60% 80% y treatment wo 100% 100% 100% 100% 100% 100% 100% 100	0 -2 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1	0 0 0 0 Total 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	99 88 102 - 113.0 115 116 100 95 76 99 88	- 88 - 101 101,0 	
Exeavator Generator Dumper (7 t) Compactor, vibratory Stage 6 - Construction of the new storm tanks and w Filing, grap band chisel Filing, scellator Filing, s	BS C4/77 BS C4/3 GPME EPD 00055 EPD 00055 EPD 00055 CNP 166 CNP 166 BS D7/24 *AEWR 2 BS C4/50 BS C4/57 BS C5/67	88 104 102 isting pro 115 115 110 95 78 99 88 113 99 104 90 106	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	100% 100% 100% 80% 80% 80% 100% 100% 100	0 -2 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	99 88 102 - 113.0 115 115 110 95 76 99 99	- 88 101 101.0	
Excavator Generator Compactor, vibratory Stage 6 - Construction of the new storm tanks and v Pling, grap and chisel Pling, socialor Plin	BS C4/77 BS C43 GPME GPME GPME GPME GPME GPME GPME GPME	88 104 102 isting pr 115 115 100 95 78 99 88 113 99 104 90 106 108	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	100% 100% 60% 80% 90% 100% 100% 100% 100% 100% 100% 100	0 -2 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1	0 0 0 0 Total 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	99 88 102 - 113.0 115 115 110 95 76 99 99	- 88 101 101.0	
Exeavator Generator Dumper (7 t) Compactor, vibratory Stage 6 - Construction of the new storm tanks and w Filing, grap band chisel Filing, scellator Filing, s	BS C4/77 BS C43 GPME EPD 00055 CNP 164 CNP 164 CNP 165 CNP 166 BS C4/77 BS C4/77 BS C4/77 BS C4/77 BS C4/77 BS C4/76 BS C4/60 CNP 021 CNP 021 CNP 021 CNP 021 CNP 021 CNP 021	88 104 102 isting pr 115 115 100 99 88 113 99 104 90 108 108	1	100% 100% 60% 80% 80% 100% 100% 100% 100% 100% 100%	0 -2 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1	0 0 0 0 Total 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	99 88 102 - 113.0 115 115 110 95 76 99 99	- 88 101 101.0	
Excavator Generator Compactor, vibratory Stage 6 - Construction of the new storm tanks and v Pling, grap and chisel Pling, socialor Plin	BS C4/77 BS C43 GPME GPME GPME GPME GPME GPME GPME GPME	88 104 102 isting pr 115 115 100 95 78 99 88 113 99 104 90 106 108	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	100% 100% 60% 80% 90% 100% 100% 100% 100% 100% 100% 100	0 -2 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1	0 0 0 0 Total 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	99 88 102 - 113.0 115 115 110 95 76 99 99	- 88 101 101.0	- 0.0 - 0.0

Max Noise Level

Remarks:

AEWAR0522002: Noise level of PME extracted from the Approved EIA Report in the Register. AEIAR-052/2002

Due to space constraint, concrete will be delivered manually from the temporary working area for the construction of frunk sewer, sewer and rising main; and upgrading of existing sewer in the villages.

Certain PMEs will be operated on site for a short period of time for the proposed works tasks. A 20, 60 and 80 percentage on-time has been given accordingly.

Project Specific PME Item	Reference	dB(A)	Items	On-time %	On-time Cor.	Barrier Cor.	Total SWL, dB(A)	Total SWL, dB(A)
Stage 1 - Partial removal of exisiting structure								
Crane, mobile mounted	BS C4/50	99	- 1	100%	0	-5	94	-
Generator	BS C4/77	88	1	100%	0	-5	83	83
Breaker, excavator mounted (hydraulic)	BS C9/12	113	1	100%	0	-5	108	-
Excavator	BS C4/65	99	1	100%	0	-5	-	94
Dumper (7 t)	BS C4/3	104	1	60%	-2	-5	-	97
Submersible Pump	CNP 283	85	2	100%	0	-5	-	83
					Total		108.0	99.0
Stage 2 - Partial reconstruction of structures								
Crane, mobile mounted	BS C4/50	99	1	100%	0	-5	94	-
Generator	BS C4/77	88	1	100%	0	-5	83	-
Bar Bender and Cutter	CNP 021	90	- 1	100%	0	-5	85	-
Concrete Pump	BS C3/25	106	2	100%	0	-5	104	-
Saw, circular, wood	CNP 201	108	1	100%	0	-5	103	-
Poker, vibratory, handheld	BS C4/34	97	2	100%	0	-5	95	-
					Total		107.0	0.0
Stage 3 - Replacement of E&M equipments								
Crane, mobile mounted	BS C4/50	99	1	100%	0	-5	94	-
Generator	BS C4/77	88	1	100%	0	-5	83	-
Winch (electric)	CNP 262	95	1	100%	0	-5	90	-
Drill/grinder, hand-held	CNP 065	98	1	100%	0	-5	93	-
					Total		97.0	0.0

Max Noise Level

Remarks: a -5 dB(A) screening correction is assumed for site hoardings Certain PMEs will be operated on site for a short period of time for the proposed works tasks. A 60 percentage on-time has been given accordingly.

Construction Plant Inventory - Mitigated Scenario Work Type 1 - Construction of Sewer (Open Cut Method)

Project Specific PME Item	Reference	dB(A)	Items	On-time %	On-time Cor.	Barrier Cor.	Total SWL, dB(A)	Total SWL, dB(A)
Stage 1 - Breaking up of road surface								
Breaker, hand-held, mass>10kg and <20kg	CNP 024	108	1	30%	-5	-10	93	-
Generator	BS C4/77	88	1	100%	0	-10	78	-
						Total	93.0	0.0
Stage 2 - Excavation of soil material								
Backhoe (mini)	*EPD-GN	94	1	100%	0	-5	89	-
Generator	BS C4/77	88	1	100%	0	-10	-	78
Submersible Pump	CNP 283	85	1	100%	0	-10	-	75
						Total	89.0	80.0
Stage 3 - Steel fixing & concreting of manholes								
Bar bender and cutter (electric)	CNP 021	90	1	20%	-7	-10	-	73
Generator	BS C4/77	88	1	100%	0	-10	78	78
Poker, vibratory, hand-held	BS C4/34	97	1	50%	-3	-10	84	
						Total	85.0	79.0
Stage 4 - Laying of bedding material								
Generator	BS C4/77	88	1	100%	0	-10	-	78
Poker, vibratory, hand-held	BS C4/34	97	1	100%	0	-10	-	87
						Total	0.0	88.0
Stage 5 - Backfilling and soil compaction							1	
Vibratory compactor	QPME							
	EPD 00055	102	1	50%	-3	-10	89	
						Total	89.0	0.0
Stage 6 - Reinstatement of road surface								
Poker, vibratory, hand-held	BS C4/34	97	1	50%	-3	-10	84	
Generator	BS C4/77	88	1	100%	0	-10	78	
						Total	85.0	0.0

Max Noise Level

Remarks:

*EPD-GN - EPD Guidance Note on Sound Power Level on Other Commonly Use PME (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

Due to space constraint, concrete will be delivered manually from the temporary working area for the construction of trunk sewer, sewer and rising main, and upgrading of existing sewer in the villages.

Certain PMEs will be operated on site for a short period of time for the proposed works tasks. A 20, 30 and 50 percentage on-time has been given accordingly.

Construction Plant Inventory - Mitigated Scenario Work Type 2 - Construction of Sewer (Trenchless Method)

Project Specific PME Item	e	dB(A)	Items	On-time %	On-time Cor.	Barrier Cor.	Total SWL, dB(A)	Total SWL, dB(A)	Total SWL, dB(A)	Total SWL, dB(A)
Stage 1 - Excavation of Pits										
Piling Rig	BS C3/14	111	1	100%	0	-10	101			
Hoist (electric)	CNP 122	95	1	100%	0	-10	85			
Breaker, excavator mounted (hydraulic)	BS C9/12	113	1	100%	0	-5		108		
Excavator	BS C4/65	99	1	100%	0	-5	-		94	-
Dumper (7 t)	BS C4/3	104	1	100%	0	-5	-		99	-
Generator	BS C4/77	88	1	100%	0	-10	78	-	78	-
Submersible Pump	CNP 283	85	2	100%	0	-10	-		78	-
Grout Mixer	*EPD's	90	1	100%	0	-10	-		-	80
Grout Pump	*EPD's	105	1	100%	0	-10			-	95
						Total	101.0	108.0	100.0	95.0
Stage 2 - Pipe Laid by Segmental Excavation										
Rock Drill, hand-held (pneumatic)	CNP 183	116	1	100%	0	-10	106			-
Air Compressor	BS D7/24	95	1	100%	0	-10	85			-
Generator	BS C4/77	88	1	100%	0	-10	78			-
Dumper (7 t)	BS C4/3	104	1	70%	-2	-5	97			
Hoist (electric)	CNP 122	95	1	70%	-2	-10	83			
Ventilation Fan	CNP 241	108	2	100%	0	-10	101			
Grout Mixer	*EPD's	90	1	100%	0	-10	80			
Grout Pump	*EPD's	105	1	100%	0	-10	95			-
·						Total	108.0	0.0	0.0	0.0
Stage 3 - Steel fixing and concreting of manholes										
Bar bender and cutter (electric)	CNP 021	90	1	20%	-7	-10	73			
Generator	BS C4/77	88	1	100%	0	-10		78		-
Poker, vibratory, hand-held	BS C4/34	97	1	50%	-3	-10		84		
Stage 4 - Reinstatement of road surface with Bricks						Total	73.0	85.0	0.0	0.0
No PME Involved						Total	0.0	0.0	0.0	0.0

Max Noise Level

Remarks:

"EPD-CN - EPD Guidance Note on Sound Power Level on Other Commonly Use PME (http://www.epd.gov/hk/epd/english/application_for_licences/guidance/files/Other/SWLe.pdf)

Due to space constraint, concrete will be delivered manually from the temporary working area for the construction of trunk sever, sever and rising main; and upgrading of existing sever in the villages.

Certain PMEs will be operated on site for a short period of time for the proposed works tasks. A 20 and 70 percentage on-time has been given accordingly.

Construction Plant Inventory - Mitigated Scenario Work Type 3 - Upgrading of Existing Sewer

Project Specific PME Item	ce	dB(A)	Items	On-time %	On-time Cor.	Barrier Cor.	Total SWL, dB(A)	Total SWL, dB(A)
Stage 1 - Breaking up of road surface								
Generator	BS C4/77	88	1	100%	0	-10	78	-
Breaker, hand-held, mass>10kg and <20kg	CNP 024	108	1	30%	-5	-10	93	-
						Total	93.0	0.0
Stage 2 - Excavation of soil material								
Backhoe (mini)	CNP 082	94	1	100%	0	-5	89	-
Generator	BS C4/77	88	1	100%	0	-10		78
Submersible pump (electric)	CNP 283	85	1	100%	0	-10		75
						Total	89.0	80.0
Stage 3 - Removal of existing sewers and laying of new sewer	rs							
Backhoe (mini)	CNP 082	94	1	100%	0	-5	89	-
						Total	89.0	0.0
Stage 4 - Steel fixing and concreting of manholes								
Bar Bender and cutter (electirc)	CNP 021	90	1	20%	-7	-10	73	-
Generator	BS C4/77	88	1	100%	0	-10		78
Poker vibratory hand-held	BS C4/34	97	1	50%	-3	-10	-	84
Diversity to the delice of the						Total	73.0	85.0
Stage 5 - Laying of bedding material	BS C4/34	97	1	100%	0	-10	87	ı
Poker, vibratory, hand-held Generator	BS C4/77	88	1	100%	0	-10	78	-
Generator	50 04/11	00	<u> </u>	10070		Total	88.0	0.0
Stage 6 - Backfilling and soil compaction						TOTAL	00.0	0.0
Vibratory compactor	QPME	1						
vibratory compactor	EPD 00055	102	1	50%	-3	-10	89	-
	•		•		•	Total	89.0	0.0
Stage 7 - Reinstatement of road surface								
Poker, vibratory, hand-held	BS C4/34	97	1	50%	-3	-10	84	-
Generator	BS C4/77	88	1	100%	0	-10	78	-
·						Total	85.0	0.0

Max Noise Level

Remarks:

"EPD-CN - EPD Guidance Note on Sound Power Level on Other Commonly Use PME (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

Due to space constraint, concrete will be delivered manually from the temporary working area for the construction of trunk sewer, sewer and rising main; and upgrading of existing sewer in the villages. Certain PMEs will be operated on site for a short period of time for the proposed works tasks. A 20, 30 and 50 percentage on-time has been given accordingly.

Construction Plant Inventory - Mitigated Scenario Work Type 4 - Upgrading of Pak She Sewage Pumping Station

Project Specific PME Item	ce	dB(A)	Items	On-time %	On-time Cor.	Barrier Cor.	Total SWL, dB(A)	Total SWL, dB(A)
Stage 1 - Partial removal of exisiting structure								
Crane, mobile mounted	BS C4/50	99	1	100%	0	-5	94	-
Generator	BS C4/77	88	1	100%	0	-5	83	83
Breaker, excavator mounted (hydraulic)	BS C9/12	113	1	100%	0	-5	108	-
Excavator	BS C4/65	99	1	100%	0	-5		94
Dumper (7 t)	BS C4/3	104	1	60%	-2	-5	-	97
Submersible Pump	CNP 283	85	2	100%	0	-5	-	83
					Total		108.0	99.0
Stage 2 - Partial reconstruction of structures								
Crane, mobile mounted	BS C4/50	99	1	100%	0	-5	94	-
Generator	BS C4/77	88	1	100%	0	-5	83	-
Bar Bender and Cutter	CNP 021	90	1	100%	0	-5	85	-
Concrete Pump	BS C3/25	106	2	100%	0	-5	104	-
Saw, circular, wood	CNP 201	108	1	100%	0	-5	103	
Poker, vibratory, handheld	BS C4/34	97	2	100%	0	-5	95	-
					Total		107.0	0.0
Stage 3 - Replacement of E&M equipments								
Crane, mobile mounted	BS C4/50	99	1	100%	0	-5	94	-
Generator	BS C4/77	88	1	100%	0	-5	83	-
Winch (electric)	CNP 262	95	1	100%	0	-5	90	
Drill/grinder, hand-held	CNP 065	98	1	100%	0	-5	93	-
				-	Total		97.0	0.0

Max Noise Level

Remarks:
a -5 dB(A) screening correction is assumed for site hoardings
Certain PMEs will be operated on site for a short period of time for the proposed works tasks. A 60 percentage on-time has been given accordingly.

Construction Plant Inventory - Mitigated Scenario Work Type 5 - Upgrading of Cheung Chau Sewage Treatment Works

Project Specific PME Item	ce	dB(A)	Items	On-time %	On-time Cor.	Barrier Cor.	Total SWL, dB(A)	Total SWL, dB(A)	Total SWL, dB(A)
Stage 1 & 2 - Demolish the abandoned filter beds & modificat		(-,	,	On-time 70	On-time oor.	Darrier Corr	Total OVIE, ub(A)	Total OVIE, ub(A)	Total OVIE, ub(A)
Breaker, excavator mounted (hydraulic)	BS C9/12	113	1	100%	0	0	113	_	
Dumper (7 t)	BS C4/3	104	1	100%	0	0	104		
	BS C4/65	99	1	100%	0	0			
Excavator	BS C4/65	88		100%	0	0	99	-	-
Generator	BS C4///	88	1	100%	U		88	-	
						Total	114.0	0.0	0.0
Stage 3 - Construction and upgrading of treatment facilities					_		ı		
Piling, grab and chisel	CNP 164	115	1	100%	0	0	115	-	-
Piling, oscillator	CNP 165	115	1	100%	0	0	115		-
Piling, reverse circulation drill	CNP 166	100	1	100%	0	0	100		-
Air Compressor	BS D7/24	95	1	100%	0	0	95	-	-
Welding Machine	*AEIAR 052/2002	78	1	100%	0	0	78	-	-
Tracked Mobile Crane	BS C4/50	99	1	100%	0	0	99	99	99
Generator	BS C4/77	88	1	100%	0	0	88	88	88
Breaker, excavator mounted (hydraulic)	BS C9/12	113	1	100%	0	0	-	113	-
Excavator	BS C4/65	99	2	100%	0	0	-	102	-
Dumper (7 t)	BS C4/3	104	1	100%	0	0	104	104	
Bar Bender and Cutter	CNP 021	90	1	100%	0	0	-	-	90
Concrete Pump	BS C3/25	106	2	100%	0	0	-	-	109
	CNP 061	104	1	100%	0	0		-	
Derrick Barge		104					-	1	104
Saw, circular, wood	CNP 201		1	100%	0	0	-	-	108
Poker, vibratory, handheld	BS C4/34	97	2	100%	0	0	-	-	100
Submersible Pump	CNP 283	85	2	100%	0	0	-	88	-
						Total	118.0	114.0	113.0
Stage 4 - Demolish existing air blower room and construction									
Crane, mobile mounted	BS C4/50	99	1	100%	0	0	99	99	-
Generator	BS C4/77	88	1	100%	0	0	88	88	
Breaker, excavator mounted (hydraulic)	BS C9/12	113	1	100%	0	0	113		-
Excavator	BS C4/65	99	1	100%	0	0	99		-
Dumper (7 t)	BS C4/3	104	1	100%	0	0	104		
Bar Bender and Cutter	CNP 021	90	1	100%	0	0	-	90	
Concrete Pump	BS C3/25	106	2	100%	0	0	-	109	
Saw, circular, wood	CNP 201	108	1	100%	0	0	-	108	
Derrick Barge	CNP 061	104	1	100%	0	0	_	104	
Poker, vibratory, handheld	BS C4/34	97	2	100%	0	0	-	100	-
i okei, vibratory, riamoneio	DO 04/04	31		10070		Total	114.0	113.0	0.0
						i otai	114.0	113.0	0.0
Stage 5 - Demolish of the primary sediment tanks and sludge		113						1	
Breaker, excavator mounted (hydraulic)	BS C9/12		1	100%	0	0	113		
Excavator	BS C4/65	99	1	100%	0	0	99	-	-
Generator	BS C4/77	88	1	100%	0	0	88	88	-
Dumper (7 t)	BS C4/3	104	1	100%	0	0	104	-	-
0	QPME	400	ا ر ا	1000/					
Compactor, vibratory	EPD 00055	102	1	100%	0	0	-	102	-
						Total	114.0	102.0	0.0
Stage 6 - Construction of the new storm tanks and workshop	demolish existing pr	elimina							
Piling, grab and chisel	CNP 164	115	1	100% 100%	0	0	115	-	-
Piling, oscillator	CNP 165 CNP 166	115 100	1	100%	0	0	115	-	-
Piling, reverse circulation drill Air Compressor	BS D7/24	95	1	100%	0	0	100 95	-	-
Welding Machine	*AEIAR 052/2002	78	1	100%	0	0	78	-	
Crane, mobile mounted	BS C4/50	99	1	100%	0	0	99	99	99
Generator	BS C4/77	88	1	100%	0	0	88	88	88
Breaker, excavator mounted (hydraulic)	BS C9/12	113	1	100%	0	0	-	113	-
Excavator	BS C4/65	99	2	100%	0	0	-	102	-
	00.04/0	104	1	100%	0	0	104	104	-
Dumper (7 t)	BS C4/3			100%	0	0	-	-	90
Bar Bender and Cutter	CNP 021	90	1						
Bar Bender and Cutter Concrete Pump	CNP 021 BS C3/25	106	2	100%	0	0	-	-	109
Bar Bender and Cutter Concrete Pump Saw, circular, wood	CNP 021 BS C3/25 CNP 201	106 108	2	100% 100%	0	0	-	-	108
Bar Bender and Cutter Concrete Pump Saw, circular, wood Derrick Barge	CNP 021 BS C3/25 CNP 201 CNP 061	106 108 104	1 1	100% 100% 100%	0 0	0			108 104
Bar Bender and Cutter Concrete Pump Saw, circular, wood Derrick Barge Poker, vibratory, handheld	CNP 021 BS C3/25 CNP 201 CNP 061 BS C4/34	106 108 104 97	2 1 1 2	100% 100% 100% 100%	0 0 0 0	0 0 0		-	108 104 100
Bar Bender and Cutter Concrete Pump Saw, circular, wood Derrick Barge	CNP 021 BS C3/25 CNP 201 CNP 061	106 108 104	1 1	100% 100% 100%	0 0	0			108 104

Max Noise Level

Remarks:

AEJAR-052/2002: Noise level of PME extracted from the Approved EIA Report in the Register. AEJAR-052/2002

Due to space constraint, concrete will be delivered manually from the temporary working area for the construction of trunk sewer, sewer and rising main; and upgrading of existing sewer in the villages.

Certain PMEs will be operated on site for a short period of time for the proposed works tasks. A 20, 60 and 80 percentage on-time has been given accordingly.

Construction Plant Inventory - Mitigated Scenario Work Type 6 - Rehabilitation of Existing Sewers

Project Specific PME Item	ence	dB(A)	Items	On-time %	On-time Cor.	Barrier Cor.	Total SWL, dB(A)		
Stage 1 - Rehabilitation of Existing Sewers									
Generator	BS C4/77	88	1	100%	0	-10	78		
Submersible Pump	CNP 283	85	1	100%	0	-10	75		
Winch (electric)	CNP 262	95	1	100%	0	-10	85		
Grinder, hand held (electric)	CNP 065	98	1	100%	0	-10	88		
Air Compressor	BS D7/24	95	1	100%	0	-10	85		
Total									

Max Noise Level

Remarks:

Construction Plant Inventory - Mitigated Scenario Work Type 7 - Temporary Concrete Mixing

Project Specific PME Item	ence	dB(A)	Items	On-time %	On-time Cor.	Barrier Cor.	Total SWL, dB(A)	Total SWL, dB(A)
Stage 1 - Operation of concrete mixer								
Concrete mixer (petrol)	CNP 046	96	1	100%	0	0	96	
Total 96.0								0.0

Max Noise Level

Remarks: