

PME Inventory

Area	Construction Activity	Mitigated Scenario											Remarks
		Equipment	Reference Code [2][3]	No. of item	% on-time in 30 min	SWL, dB(A)	Mitigated Sub-total SWL, dB(A)	Enclosure, dB(A)	Barrier, dB(A)	Total Reduction, dB(A)	Mitigated Sub-total SWL, dB(A)	Total SWL dB(A)	
1.1.1	1.1.1 Site Clearance & Mobilisation	Excavator, mini-robot mounted	OCUPME-016	1	50%	94	91			0	91	102	
		Breaker, electric hand-held, 10kg < mass < 18kg	OCUPME-004	1	30%	103	98			0	98		
		Generator, Silenced	EPD-12580	1	100%	88	88	-15		-15	73		
		Water pump (electric)	CNP 281	1	100%	88	88			0	88		
		Dump truck, with grab, 5.5 tonne < gross vehicle weight ≤ 38 tonne	OCUPME-047	1	30%	105	100			0	100		
1.1.2	1.1.2 Construction of Crossing Bridge	Excavator, mini-robot mounted	OCUPME-016	1	50%	94	91			0	91	103	
		Generator, Silenced	EPD-12580	1	100%	88	88	-15		-15	73		
		Water pump (electric)	CNP 281	1	50%	88	85			0	85		
		Dump truck, with grab, 5.5 tonne < gross vehicle weight ≤ 38 tonne	OCUPME-047	1	40%	105	101		-5	-5	96		
		Concrete lorry mixer	CNP 044	1	50%	109	106		-5	-5	101		
		Poker, vibratory, hand-held (electric)	OCUPME-027	1	50%	102	99		-5	-5	94		
1.2.1	1.2.1 Site Clearance & Mobilisation	Excavator, mini-robot mounted	OCUPME-016	1	50%	94	91		-5	-5	86	101	
		Breaker, electric hand-held, 10kg < mass < 18kg	OCUPME-004	1	30%	103	98		-5	-5	93		
		Generator, Silenced	EPD-12580	1	100%	88	88	-15		-15	73		
		Water pump (electric)	CNP 281	1	100%	88	88			0	88		
		Dump truck, with grab, 5.5 tonne < gross vehicle weight ≤ 38 tonne	OCUPME-047	1	30%	105	100			0	100		
1.2.2	1.2.2 Excavation for Stormwater Pumping Station	Excavator, mini-robot mounted	OCUPME-016	2	50%	94	94			0	94	101	
		Generator, Silenced	EPD-12580	2	100%	88	91	-15		-15	76		
		Water pump (electric)	CNP 281	2	100%	88	91			0	91		
		Dump truck, with grab, 5.5 tonne < gross vehicle weight ≤ 38 tonne	OCUPME-047	1	30%	105	100			0	100		
1.2.3	1.2.3 Piling Works for Wet Well and Pumping Station	Piling, large diameter bored, reverse circulation drill	CNP 166	1	50%	100	97		-5	-5	92	103	
		Drill rig, rotary type (diesel)	OCUPME-015	1	50%	110	107		-5	-5	102		
		Air Compressor	EPD-07503	2	50%	92	92		-5	-5	87		
		Generator, Silenced	EPD-12580	2	100%	88	91	-15		-15	76		
		Water pump (electric)	CNP 281	2	100%	88	91			0	91		
		Mobile Crane	EPD-07646	2	50%	92	92		-5	-5	87		
1.2.4	1.2.4 Concreting Works for Wet Well	Concrete lorry mixer	CNP 044	1	80%	109	108		-5	-5	103	104	
		Generator, Silenced	EPD-12580	2	100%	88	91	-15		-15	76		
		Poker, vibratory, hand-held (electric)	OCUPME-027	1	80%	102	101		-5	-5	96		
1.2.5	1.2.5 Superstructure for Pumping Station	Mobile Crane	EPD-07646	1	50%	92	89		-5	-5	84	104	
		Concrete lorry mixer	CNP 044	1	80%	109	108		-5	-5	103		
		Generator, Silenced	EPD-12580	2	100%	88	91	-15		-15	76		
		Poker, vibratory, hand-held (electric)	OCUPME-027	1	50%	102	99		-5	-5	94		
1.2.6	1.2.6 E&M Installation for Pumping Station	Mobile Crane	EPD-07646	1	50%	92	89			0	89	89	
1.2.7	1.2.7 Reinstatement	Concrete lorry mixer	CNP 044	1	85%	109	108		-5	-5	103	104	
		Generator, Silenced	EPD-12580	1	85%	88	87	-15		-15	72		
		Poker, vibratory, hand-held (electric)	OCUPME-027	1	85%	102	101		-5	-5	96		
	1.3 Construction of Associated Drainage Works (Outlet Channel to River Silver)												

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		Equipment	Reference Code [2][3]	No. of item	% on-time in 30 min	SWL, dB(A)	Mitigated Sub-total SWL, dB(A)	Enclosure, dB(A)	Barrier, dB(A)	Total Reduction, dB(A)	Mitigated Sub-total SWL, dB(A)	Total SWL dB(A)	
1.3.1	1.3.1 Site Clearance & Mobilisation	Excavator, mini-robot mounted	OCUPME-016	2	50%	94	94			0	94	104	
		Breaker, electric hand-held, 10kg < mass < 18kg	OCUPME-004	1	30%	103	98			0	98		
		Generator, Silenced	EPD-12580	2	100%	88	91	-15		-15	76		
		Water pump (electric)	CNP 281	2	100%	88	91			0	91		
		Dump truck, with grab, 5.5 tonne < gross vehicle weight ≤ 38 tonne	OCUPME-047	1	50%	105	102			0	102		
1.3.2	1.3.2 Excavation & Temporary Works	Excavator, mini-robot mounted	OCUPME-016	1	50%	94	91			0	91	100	
		Generator, Silenced	EPD-12580	1	100%	88	88	-15		-15	73		
		Water pump (electric)	CNP 281	1	30%	88	83			0	83		
		Dump truck, with grab, 5.5 tonne < gross vehicle weight ≤ 38 tonne	OCUPME-047	1	30%	105	100			0	100		
1.3.3	1.3.3 Formwork Erection, Reinforcement Fixing and Concreting	Concrete lorry mixer	CNP 044	1	60%	109	107		-5	-5	102	103	
		Generator, Silenced	EPD-12580	1	100%	88	88	-15		-15	73		
		Mobile Crane	EPD-07646	1	50%	92	89			0	89		
		Bar bender and cutter (electric)	CNP 021	1	50%	90	87		-5	-5	82		
		Poker, vibratory, hand-held (electric)	OCUPME-027	1	50%	102	99		-5	-5	94		
1.3.4	1.3.4 Formwork Dismantling and Backfilling	Excavator, mini-robot mounted	OCUPME-016	1	50%	94	91		-5	-5	86	98	
		Generator, Silenced	EPD-12580	1	100%	88	88	-15		-15	73		
		Roller, vibratory	EPD-06779	1	50%	94	91		-5	-5	86		
		Dump truck, with grab, 5.5 tonne < gross vehicle weight ≤ 38 tonne	OCUPME-047	1	50%	105	102		-5	-5	97		
1.4.1	1.4.1 Pipe-laying Works	Winch (electric)	CNP 262	1	50%	95	92		-10	-10	82	88	
		Air blower (electric)	OCUPME-003	1	50%	95	92		-5	-5	87		
		Generator, Silenced	EPD-12580	1	100%	88	88	-15		-15	73		
1.4.2	1.4.2 Backfilling & Reinstatement	Excavator, mini-robot mounted	OCUPME-016	1	50%	94	91		-5	-5	86	89	
		Generator, Silenced	EPD-12580	1	100%	88	88	-15		-15	73		
		Roller, vibratory	EPD-06779	1	50%	94	91		-5	-5	86		
1.5.1	1.5.1 Construction of Launching Pit	Excavator, mini-robot mounted	OCUPME-016	1	50%	94	91		-5	-5	86	96	
		Dump truck, with grab, 5.5 tonne < gross vehicle weight ≤ 38 tonne	OCUPME-047	1	30%	105	100		-5	-5	95		
		Generator, Silenced	EPD-12580	1	100%	88	88	-15		-15	73		
		Water pump (electric)	CNP 281	1	100%	88	88			0	88		
1.5.2	1.5.2 Equipment Setup	Mobile Crane	EPD-07646	1	50%	92	89		-5	-5	84	100	
		Dump truck, with grab, 5.5 tonne < gross vehicle weight ≤ 38 tonne	OCUPME-047	1	30%	105	100			0	100		
1.5.3	1.5.3 Trenchless Operation	Water pump (electric)	CNP 281	2	100%	88	91			0	91	101	
		Excavator, mini-robot mounted	OCUPME-016	1	50%	94	91			0	91		
		Dump truck, with grab, 5.5 tonne < gross vehicle weight ≤ 38 tonne	OCUPME-047	1	30%	105	100			0	100		
		Generator, Silenced	EPD-12580	1	100%	88	88	-15		-15	73		
		Tunnelling Machine	EIA ref1	1	100%	88	88			0	88		
1.5.4	1.5.4 Construction of Manhole	Concrete lorry mixer	CNP 044	1	50%	109	106		-5	-5	101	102	
		Winch (electric)	CNP 262	1	50%	95	92			0	92		
		Generator, Silenced	EPD-12580	1	100%	88	88	-15		-15	73		

PME Inventory

Area	Construction Activity	Mitigated Scenario											Remarks
		Equipment	Reference Code [2][3]	No. of item	% on-time in 30 min	SWL, dB(A)	Mitigated Sub-total SWL, dB(A)	Enclosure, dB(A)	Barrier, dB(A)	Total Reduction, dB(A)	Mitigated Sub-total SWL, dB(A)	Total SWL dB(A)	
1.5.5	1.5.5 Reinstatement and Ancillary Works	Water pump (electric)	CNP 281	1	100%	88	88			0	88		
		Poker, vibratory, hand-held (electric)	OCUPME-027	1	50%	102	99		-5	-5	94		
		Excavator, mini-robot mounted	OCUPME-016	1	50%	94	91		-5	-5	86	101	
		Dump truck, with grab, 5.5 tonne <gross vehicle weight ≤ 38 tonne	OCUPME-047	1	30%	105	100		-5	-5	95		
		Compactor, vibratory	CNP 050	1	50%	105	102		-5	-5	97		
		Asphalt paver	EPD-12854	1	50%	104	101		-5	-5	96		
2.1	2.1 Site Clearance & Mobilisation	Excavator, mini-robot mounted	OCUPME-016	1	50%	94	91			0	91	102	
		Breaker, electric hand-held, 10kg < mass < 18kg	OCUPME-004	1	30%	103	98			0	98		
		Generator, Silenced	EPD-12580	1	100%	88	88	-15		-15	73		
		Water pump (electric)	CNP 281	1	50%	88	85			0	85		
		Dump truck, with grab, 5.5 tonne <gross vehicle weight ≤ 38 tonne	OCUPME-047	1	30%	105	100			0	100		
2.2	2.2 Excavation & Temporary Works	Excavator, mini-robot mounted	OCUPME-016	1	50%	94	91			0	91	103	
		Generator, Silenced	EPD-12580	2	100%	88	91	-15		-15	76		
		Water pump (electric)	CNP 281	2	50%	88	88			0	88		
		Dump truck, with grab, 5.5 tonne <gross vehicle weight ≤ 38 tonne	OCUPME-047	1	60%	105	103			0	103		
2.3	2.3 Formwork Erection, Reinforcement Fixing and Concreting	Concrete lorry mixer	CNP 044	1	50%	109	106		-5	-5	101	102	
		Generator, Silenced	EPD-12580	1	100%	88	88	-15		-15	73		
		Mobile Crane	EPD-07646	1	50%	92	89		-5	-5	84		
		Bar bender and cutter (electric)	CNP 021	1	50%	90	87			0	87		
		Poker, vibratory, hand-held (electric)	OCUPME-027	1	50%	102	99		-5	-5	94		
2.4	2.4 Formwork Dismantling and Backfilling	Excavator, mini-robot mounted	OCUPME-016	1	50%	94	91			0	91	101	
		Generator, Silenced	EPD-12580	1	100%	88	88	-15		-15	73		
		Roller, vibratory	EPD-06779	1	50%	94	91			0	91		
		Dump truck, with grab, 5.5 tonne <gross vehicle weight ≤ 38 tonne	OCUPME-047	1	30%	105	100			0	100		
3.1	3.1 River Improvement Works Along Tai Tei Tong River												
3.1.1	3.1.1 Construction of Flood Walls and Reconstruction of Gabion Walls	Excavator, mini-robot mounted	OCUPME-016	1	50%	94	91		-5	-5	86	86	
		Generator, Silenced	EPD-12580	2	100%	88	91	-15		-15	76		
3.1.2	3.1.2 River Reprofilng	Excavator, mini-robot mounted	OCUPME-016	1	50%	94	91			0	91	97	
		Generator, Silenced	EPD-12580	2	50%	88	88	-15		-15	73		
		Water pump (electric)	CNP 281	2	100%	88	91			0	91		
		Dump truck, with grab, 5.5 tonne <gross vehicle weight ≤ 38 tonne	OCUPME-047	1	30%	105	100		-5	-5	95		
3.1.3	3.1.3 Modification of Agricultural Weir & Fish Ladder	Mobile Crane	EPD-07646	1	50%	92	89			0	89	104	100
		Concrete crusher mini-robot mounted	OCUPME-008	1	50%	94	91			0	91		
		Generator, Silenced	EPD-12580	2	50%	88	88	-15		-15	73		
		Excavator, mini-robot mounted	OCUPME-016	1	50%	94	91			0	91		
		Water pump (electric)	CNP 281	1	100%	88	88			0	88		
		Dump truck, with grab, 5.5 tonne <gross vehicle weight ≤ 38 tonne	OCUPME-047	1	50%	105	102		-5	-5	97		
	Concrete lorry mixer	CNP 044	1	60%	109	107		-5	-5	102			

To minimise the construction noise impact on N11, the use of concrete lorry mixer for modification of agricultural weir & fish ladder should be avoided during examination period of N11. Hence, the total SWL for modification of agricultural weir & fish ladder during examination period will be 100dB(A).

PME Inventory

Area	Construction Activity	Mitigated Scenario											Remarks
		Equipment	Reference Code [2][3]	No. of item	% on-time in 30 min	SWL, dB(A)	Mitigated Sub-total SWL, dB(A)	Enclosure, dB(A)	Barrier, dB(A)	Total Reduction, dB(A)	Mitigated Sub-total SWL, dB(A)	Total SWL dB(A)	
3.1.4	3.1.4 Construction of Low Flow Device	Poker, vibratory, hand-held (electric)	OCUPME-027	1	30%	102	97			-5	-5	92	104
		Mobile Crane	EPD-07646	1	50%	92	89				0	89	
		Concrete lorry mixer	CNP 044	1	50%	109	106			-5	-5	101	
		Generator, Silenced	EPD-12580	2	100%	88	91	-15		-15	-15	76	
		Water pump (electric)	CNP 281	2	100%	88	91				0	91	
		Dump truck, with grab, 5.5 tonne <gross vehicle weight ≤ 38 tonne	OCUPME-047	1	40%	105	101			-5	-5	96	
		Excavator, mini-robot mounted	OCUPME-016	1	50%	94	91				0	91	
		Poker, vibratory, hand-held (electric)	OCUPME-027	1	50%	102	99			-5	-5	94	
3.2.1	3.2.1 Reconstruction of gabion walls	Mobile Crane	EPD-07646	1	30%	92	87				0	87	102
		Excavator, mini-robot mounted	OCUPME-016	1	50%	94	91				0	91	
		Dump truck, with grab, 5.5 tonne <gross vehicle weight ≤ 38 tonne	OCUPME-047	1	50%	105	102				0	102	
3.2.2	3.2.2 Construction of box culvert	Mobile Crane	EPD-07646	1	50%	92	89				0	89	103
		Excavator, mini-robot mounted	OCUPME-016	1	50%	94	91				0	91	
		Generator, Silenced	EPD-12580	1	100%	88	88	-15		-15	-15	73	
		Water pump (electric)	CNP 281	2	100%	88	91				0	91	
		Dump truck, with grab, 5.5 tonne <gross vehicle weight ≤ 38 tonne	OCUPME-047	1	50%	105	102				0	102	
3.2.3	3.2.3 Construction of mechanical penstocks	Mobile Crane	EPD-07646	1	50%	92	89				0	89	101
		Generator, Silenced	EPD-12580	2	100%	88	91	-15		-15	-15	76	
		Excavator, mini-robot mounted	OCUPME-016	1	50%	94	91				0	91	
		Water pump (electric)	CNP 281	1	100%	88	88				0	88	
		Dump truck, with grab, 5.5 tonne <gross vehicle weight ≤ 38 tonne	OCUPME-047	1	30%	105	100				0	100	
4.1	4.1 Construction of Temporary Barrier across River Silver & Isolation from upstream flows	Excavator, mini-robot mounted	OCUPME-016	1	50%	94	91				0	91	98
		Generator, Silenced	EPD-12580	2	100%	88	91	-15		-15	-15	76	
		Water pump (electric)	CNP 281	2	100%	88	91				0	91	
		Dump truck, with grab, 5.5 tonne <gross vehicle weight ≤ 38 tonne	OCUPME-047	1	30%	105	100			-5	-5	95	
		Mobile Crane	EPD-07646	1	30%	92	87				0	87	
4.2	4.2 Concreting Works for Tidal Gate	Mobile Crane	EPD-07646	1	50%	92	89				0	89	103
		Concrete lorry mixer	CNP 044	1	70%	109	107			-5	-5	102	
		Generator, Silenced	EPD-12580	2	100%	88	91	-15		-15	-15	76	
		Poker, vibratory, hand-held (electric)	OCUPME-027	1	50%	102	99			-5	-5	94	
4.3	4.3 Delivery and E&M Installation for Tidal Gates	Mobile Crane	EPD-07646	1	50%	92	89			-5	-5	84	85
		Generator, Silenced	EPD-12580	2	100%	88	91	-15		-15	-15	76	
5.1	5.1 Construction of Footpath along Luk Tei Tong Bypass Channel	Excavator, mini-robot mounted	OCUPME-016	1	50%	94	91				0	91	98
		Generator, Silenced	EPD-12580	2	100%	88	91	-15		-15	-15	76	
		Dump truck, with grab, 5.5 tonne <gross vehicle weight ≤ 38 tonne	OCUPME-047	1	50%	105	102			-5	-5	97	
4. Construction of Tidal Gate and Other Associated Works													
5. River Revitalisation and Associated Works													

PME Inventory

Area	Construction Activity	Mitigated Scenario										
		Equipment	Reference Code [2][3]	No. of item	% on-time in 30 min	SWL, dB(A)	Mitigated Sub-total SWL, dB(A)	Enclosure, dB(A)	Barrier, dB(A)	Total Reduction, dB(A)	Mitigated Sub-total SWL, dB(A)	Total SWL dB(A)
5.2	5.2 Softscape & Hardscape Works	Mobile Crane	EPD-07646	1	50%	92	89		-5	-5	84	
		Mobile Crane	EPD-07646	1	50%	92	89		-5	-5	84	
		Generator, Silenced	EPD-12580	1	100%	88	88	-15		-15	73	
		Excavator, mini-robot mounted	OCUPME-016	2	50%	94	94		-5	-5	89	

Notes:

- [1] The figures are rounded-up to a whole number.
- [2] Sound power levels of other commonly used PME (by EPD) (OCUPME -no.);
- [3] Sound Power Level of QPME (EPD's website)
- [4] EIA Ref 1 - The SWL of tunnelling machine has been made reference to the approved EIA Report of Desalination Plant at Tseung Kwan O (AEIAR-192/2015)