Appendix 4.6 Construction Plant Inventory (Mitigated Scenario)

ID	Main Construction Tasks	Group ID	Construction Works	Work Section *(see Appendix 4.2)*	Sub-Group [1]	Sub-Plant ID [2]	Plant / Equipment	Ref Code	SWL, dB(A) (PME)	No. of Units	Utilization Rate (%)	Mitigation Measures [7]	Barrier Correction, dB(A)	Adjusted SWL, dB(A) (PME)	SWL, dB(A) (Sub-Plant) [2]	SWL, dB(A) (Sub-Group) [1]	SWL, dB(A) (PME Group)
A	**Channel Bed Modification**	A-1	Excavation, Re-surfacing and Greening along the Nullah	**1 to 2, 4 to 6**	a Excavation	A-1a-1	Air Compressor, air flow < 10m3/min	CNP 001 [3]	100	1	50			97	102	102	**102**
							Breaker HILTI TE 1000-AVR187619	EPD-04329 [4]	99	1	50			96			
							Excavator/loader KOBELCO SK200-8 YN12070005	EPD-09127 [4]	99	1	70			97			
					b Re-surfacing and Greening along the Nullah - Backfill	A-1b-1	Roller, vibratory SAKAI HV620 5HV23-11652	EPD-10387 [4]	94	1	100			94	94	94	
					c Re-surfacing and Greening along the Nullah - Vegetating	A-1c-1	Crane MANITOWOC 11000-1U11001901	EPD-08825 [4]	101	1	100			101	101	101	
				3	a Excavation	A-1a-1-Br	Air Compressor, air flow < 10m3/min	CNP 001 [3]	100	1	50	Movable Noise Barrier	-10	87	95	95	**96**
							Breaker HILTI TE 1000-AVR187619	EPD-04329 [4]	99	1	50	Movable Noise Barrier	-5	91			
							Excavator/loader KOBELCO SK200-8 YN12070005	EPD-09127 [4]	99	1	70	Movable Noise Barrier	-5	92			
					b Re-surfacing and Greening along the Nullah - Backfill	A-1b-1-Br	Roller, vibratory SAKAI HV620 5HV23-11652	EPD-10387 [4]	94	1	100	Movable Noise Barrier	-5	89	89	89	
					c Re-surfacing and Greening along the Nullah - Vegetating	A-1c-1-Br	Crane MANITOWOC 11000-1U11001901	EPD-08825 [4]	101	1	100	Movable Noise Barrier	-5	96	96	96	
B	**Improvement of Existing Walkways**	B-1	Construction of Viewing Deck / Pavillion, Renovation of Existing Footbridges	**1 & 3**	a Construction of Viewing Deck / Pavillion, Renovation of Existing Footbridges	B-1a-1-Br	Air Compressor, air flow < 10m3/min	CNP 001 [3]	100	1	50	Movable Noise Barrier	-10	87	95	95	**95**
							Breaker HILTI TE 1000-AVR187619	EPD-04329 [4]	99	1	50	Movable Noise Barrier	-10	86			
							Poker vibratory, hand-held (electic)	OCUPME-019 [6]	102	1	70	Movable Noise Barrier	-10	90			
							Generator, super silenced, 70dB(A) at 7m	CNP 103 [3]	95	1	100	Movable Noise Barrier	-10	85			
							Roller, vibratory SAKAI HV620 5HV23-11652	EPD-10387 [4]	94	1	100	Movable Noise Barrier	-5	89			
				2, 4 to 6		B-1a-1	Air Compressor, air flow < 10m3/min	CNP 001 [3]	100	1	50			97	104	104	**104**
							Breaker HILTI TE 1000-AVR187619	EPD-04329 [4]	99	1	50			96			
							Poker vibratory, hand-held (electic)	OCUPME-019 [6]	102	1	70			100			
							Generator, super silenced, 70dB(A) at 7m	CNP 103 [3]	95	1	100			95			
							Roller, vibratory SAKAI HV620 5HV23-11652	EPD-10387 [4]	94	1	100			94			
C	**Construction of Dry Weather Flow Interceptor (DWFI) System / Water pumps and Pipes for Ecological Enhancement Associated Water Retention and Supplement**	C-1	Connection Works of DWFI System to Existing Sewerage System	**2**	a Excavation and Lateral Support	C-1a-1	Giken Piler and Power-pack	- [5]	94	1	70			92	100	108	**108**
							Excavator/loader KOBELCO SK200-8 YN12070005	EPD-09127 [4]	99	1	70			97			
							Generator, super silenced, 70dB(A) at 7m	CNP 103 [3]	95	1	100			95			
						C-1a-2	Excavator/loader KOBELCO SK200-8 YN12070005	EPD-09127 [4]	99	1	70			97	97		
						C-1a-3	Ventilation fan	CNP 241 [3]	108	1	100			108	108		
							Generator, super silenced, 70dB(A) at 7m	CNP 103 [3]	95	1	100			95			
					b Pipe Laying and Connection	C-1b-1	Crane MANITOWOC 11000-1U11001901	EPD-08825 [4]	101	1	100			101	101	101	
		C-2	Construction of DWFI Channel along the Nullah, and Mid-stream water pumps and Pipes along the Nullah for Ecological Enhancement Associated Water Supplement	**2, 4 to 6**	c Concreting	C-2c-1	Concrete lorry mixer	CNP 044 [3]	109	1	50			106	107	107	**107**
							Poker vibratory, hand-held (electic)	OCUPME-019 [6]	102	1	70			100			
							Generator, super silenced, 70dB(A) at 7m	CNP 103 [3]	95	1	100			95			
						C-2c-2	Saw, circular, wood	CNP 201 [3]	108	1	70			106	106		
					d Backfill	C-2d-1	Roller, vibratory SAKAI HV620 5HV23-11652	EPD-10387 [4]	94	1	100			94	94	94	
				3	c Concreting	C-2c-1-Br	Concrete lorry mixer	CNP 044 [3]	109	1	50	Movable Noise Barrier	-5	101	101	101	**101**
							Poker vibratory, hand-held (electic)	OCUPME-019 [6]	102	1	70	Movable Noise Barrier	-10	90			
							Generator, super silenced, 70dB(A) at 7m	CNP 103 [3]	95	1	100	Movable Noise Barrier	-10	85			
						C-2c-2-Br	Saw, circular, wood	CNP 201 [3]	108	1	70	Movable Noise Barrier	-10	96	96		
					d Backfill	C-2d-1-Br	Roller, vibratory SAKAI HV620 5HV23-11652	EPD-10387 [4]	94	1	100	Movable Noise Barrier	-5	89	89	89	
D	**Landscaping and Miscellaneous**	D-1	Landscaping / Greening along Nullah Bank	**1, 2, 4 to 6**	a Planter Construction / Modification	D-1a-1	Concrete mixer (petrol)	CNP 046 [3]	96	1	50			93	102	102	**102**
							Poker vibratory, hand-held (electic)	OCUPME-019 [6]	102	1	70			100			
							Generator, super silenced, 70dB(A) at 7m	CNP 103 [3]	95	1	100			95			
						D-1a-2	Roller, vibratory SAKAI HV620 5HV23-11652	EPD-10387 [4]	94	1	100			94	94		
					b Vegetating	D-1b-1	Crane Maeda CC985S-1 51215	EPD-05602 [4]	91	1	100			91	91	91	
				3	a Planter Construction / Modification	D-1a-1-Br	Concrete mixer (petrol)	CNP 046 [3]	96	1	50	Movable Noise Barrier	-5	88	93	93	**93**
							Poker vibratory, hand-held (electic)	OCUPME-019 [6]	102	1	70	Movable Noise Barrier	-10	90			
							Generator, super silenced, 70dB(A) at 7m	CNP 103 [3]	95	1	100	Movable Noise Barrier	-10	85			
						D-1a-2-Br	Roller, vibratory SAKAI HV620 5HV23-11652	EPD-10387 [4]	94	1	100	Movable Noise Barrier	-5	89	89		
					b Vegetating	D-1b-1-Br	Crane Maeda CC985S-1 51215	EPD-05602 [4]	91	1	100	Movable Noise Barrier	-5	86	86	86	
		D-2	Utlilty Works	**1, 2, 4 to 6**	c Utility Laying/Connection	D-2c-1	Excavator/loader KOBELCO SK200-8 YN12070005	EPD-09127 [4]	99	1	70			97	98	98	**98**
							Crane Maeda CC985S-1 51215	EPD-05602 [4]	91	1	100			91			
				3	c Utility Laying/Connection	D-2c-1-Br	Excavator/loader KOBELCO SK200-8 YN12070005	EPD-09127 [4]	99	1	70	Movable Noise Barrier	-5	92	93	93	**93**
							Crane Maeda CC985S-1 51215	EPD-05602 [4]	91	1	100	Movable Noise Barrier	-5	86			
E	**Underground Water Storage Tank**	E-1	Excavation and Lateral Support	**6**	a Excavation and Lateral Support	6E-1a-1	Excavator/loader KOBELCO SK200-8 YN12070005	EPD-09127 [4]	99	1	70			97	97	108	**108**
						6E-1a-2	Giken Piler and Power-pack	- [5]	94	1	70			92	100		
							Excavator/loader KOBELCO SK200-8 YN12070005	EPD-09127 [4]	99	1	70			97			
							Generator, super silenced, 70dB(A) at 7m	CNP 103 [3]	95	1	100			95			
						6E-1a-3	Ventilation fan	CNP 241 [3]	108	1	100			108	108		
							Generator, super silenced, 70dB(A) at 7m	CNP 103 [3]	95	1	100			95			
		E-2	Foundation Works		a Foundation Works by Mini-pile	6E-2a-1	Ventilation fan	CNP 241 [3]	108	1	100			108	109	109	**109**
							Generator, super silenced, 70dB(A) at 7m	CNP 103 [3]	95	1	100			95			
							Piling, large diameter bored, reverse circulation drill	CNP 166 [3]	100	1	70			98			
		E-3	Structural and E&M Installation Works for Storage Tank		a Construction of Storage Tank	6E-3a-1	Concrete lorry mixer	CNP 044 [3]	109	1	50			106	109	109	**109**
							Poker vibratory, hand-held (electic)	OCUPME-019 [6]	102	1	70			100			
							Water pump (petrol)	CNP 282 [3]	103	1	100			103			
							Bar bender and cutter (electric)	CNP 021 [3]	90	1	70			88			
							Crane MANITOWOC 11000-1U11001901	EPD-08825 [4]	101	1	70			99			
		E-4	Pipeworks at Kwei Tei Garden Connecting Nullah to Tank		a Excavation, Utility Laying/Connection & Backfill	6E-4a-1	Excavator/loader KOBELCO SK200-8 YN12070005	EPD-09127 [4]	99	1	70			97	107	107	**107**
							Crane MANITOWOC 11000-1U11001901	EPD-08825 [4]	101	1	100			101			
							Compactor, vibratory	CNP 050 [3]	105	1	100			105			
		E-5	Pipeworks under Kwei Tei Street Connecting Tank to Box Culvert		a Excavation, Utility Laying/Connection & Backfill	6E-5a-1	Excavator/loader KOBELCO SK200-8 YN12070005	EPD-09127 [4]	99	1	70			97	107	107	**107**
							Crane MANITOWOC 11000-1U11001901	EPD-08825 [4]	101	1	100			101			
							Compactor, vibratory	CNP 050 [3]	105	1	100			105			
F	**Desilting at Downstream Tidal Zone**	F-1	Desilting at Downstream Tidal Zone	**1**	a Desilting	F-1a-1	Excavator/loader KOBELCO SK200-8 YN12070005	EPD-09127 [4]	99	1	70	Movable Noise Barrier	-5	92	101	101	**101**
							Dump truck, 5.5 tonne< gross vehicle weight =< 38	OCUPME-038 [6]	105	1	30			100			

Remarks:
[1] Only one Sub-Group in a PME Group will be operating at the same time.
[2] Only one Sub-Plant in a Sub-Group will be operating at the same time.
[3] The SWL is referenced with Table 3 of EPD's Technical Memorandum on Noise from Construction Work Other Than Percussive Piling.
[4] The SWL is referenced with QPME system published by EPD.
[5] The SWL is referenced to AEIAR-127/2008 "EIA Report of Tsim Sha Tsui Station Northern Subway". For the sound pressure level at 7m from equipment, see website link: https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/home2/quieter-construction-equipment/item/27-press-in-method.html
[6] The SWL is referenced to "Sound power levels of other commonly used PME" at EPD website, https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf
[7] Use of designed barriers could provide at least 5 dB(A) reduction for mobile PME and a 10 dB(A) reduction for static PME.