

ANNEX B

ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE

## ANNEX B ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE

EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?	imp	en to lement asure? ‹	1)	What requirements or standards for the measure to achieve?	Implementation Status and Remarks
						D	C O/R	Α		
		ction Phase	1	1	1				1	
4.8.1	AQ1	<ul> <li>The area within 30m of the blasting area will be wetted prior to blasting.</li> </ul>	To minimise potential dust nuisance	Blasting area and 30m of blasting area	SENTX Contractor				Air Pollution Control (Construction Dust) Regulations	Not applicable. Blasting is not required in the latest landfill design
		Blasting will not be carried out when the strong wind signal or tropical cyclone warning signal No. 3 or higher is hoisted, unless this is with the express prior permission of the Commissioner of Mines.								
		loose material and stones in the Site will be removed prior to the blast operation								
		During blasting, blast nets, screens and other protective covers will be used to prevent the projection of flying								

 $<sup>(1) \ \ \,</sup> D=Design; \ \, C=Construction; \ \, O/R=Operation/Restoration; \ \, A=After care$ 



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						D	С	O/R	Α		
		fragments and material resulting from blasting									
4.8.1	AQ2	Rock Drilling  Watering will be carried out at the rock drilling activities to avoid fugitive dust emissions.	To minimise potential dust nuisance	Rock drilling area	SENTX Contractor		<b>✓</b>			Air Pollution Control (Construction Dust) Regulations	Not applicable. Rock drilling is not required in the latest landfill design
4.8.1	AQ3	<ul> <li>Site Access Road</li> <li>The main haul road will be kept clear of dusty materials or sprayed with water.</li> <li>The main haul road will be paved with aggregate or gravel.</li> <li>Vehicle speed will be limited to 10kph.</li> </ul>	To minimise potential dust nuisance	Main haul road	SENTX Contractor		~			Air Pollution Control (Construction Dust) Regulations HKAQO and EIAO-TM Annex	Implemented
4.8.1	AQ4	Stockpiling of Dusty Materials  Any stockpile of dusty materials will be covered entirely by impervious sheeting or placed in an area sheltered on the top and three sides or sprayed	To minimise potential dust nuisance	All construction works area	SENTX Contractor		<b>✓</b>			Air Pollution Control (Construction Dust) Regulations	Deficiency of mitigation measures but rectified by the Contractor



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						D	С	O/R	Α			
	that the en wet.	with water so as to ensure that the entire surface is wet.								HKAQO and EIAO-TM Annex 4		
4.8.1	AQ5	Loading, unloading or transfer of dusty materials  • All dusty materials will be sprayed with water immediately prior to any loading, unloading or transfer operation so as to maintain the dusty material wet.	To minimise potential dust nuisance	All construction works area	SENTX Contractor		~			Air Pollution Control (Construction Dust) Regulations HKAQO and EIAO-TM Annex	Implemented	
4.8.1	AQ6	• Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of height not less than 2.4m from ground level will be provided along the entire length of that portion of the site boundary except for the site entrance or exit.	To minimise potential dust nuisance	Site boundary and entrance	SENTX Contractor		V			Air Pollution Control (Construction Dust) Regulations HKAQO and EIAO-TM Annex	Not applicable	



	EM&A Ref	Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?	im	eas	ment ure? <sup>4</sup>		What requirements or standards for the measure to achieve?	Implementation Status and Remarks
4.8.1	AQ7	Excavation Works  • Working area of any excavation or earth moving operation will be sprayed with water immediately before, during and immediately after the operation so as to ensure that the entire surface is wet.	To minimise potential dust nuisance	All construction works area	SENTX Contractor	D	C	O/R	A	Air Pollution Control (Construction Dust) Regulations HKAQO and EIAO-TM Annex	Implemented
4.8.1	AQ8	<ul> <li>Building Demolition</li> <li>The area where the demolition works are planned to take place will be sprayed with water immediately prior to, during and immediately after the demolition activities.</li> <li>Any dusty materials remaining after a stockpile is removed will be wetted with water and cleared from the surface of roads or street.</li> </ul>	To minimise potential dust nuisance	All construction works area	SENTX Contractor		•			Air Pollution Control (Construction Dust) Regulations HKAQO and EIAO-TM Annex 4	Implemented



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4.8.1	AQ9	Construction of the Superstructure of Building  • Effective dust screens, sheeting or netting will be provided to enclose the scaffolding from the ground level up to the highest level of the scaffolding.	To minimise potential dust nuisance	construction works area	SENTX Contractor		<b>✓</b>			Air Pollution Control (Construction Dust) Regulations HKAQO and EIAO-TM Annex	Implemented
4.8.1	AQ10	Should a stone crushing plant be needed on site, the control measures recommended in the Best Practicable Means Requirement for Mineral Works (Stone Crushing Plants) BPM 11/1 should be implemented.	To minimise potential dust nuisance	Stone crushing plant/ construction phase			<b>✓</b>			Best Practicable Means Requirement for Mineral Works (Stone Crushing Plants) BPM 11/1	required in the
4.8.1	AQ11	Good site practices such as regular maintenance and checking of the diesel powered mechanical equipment will be adopted to avoid any black smoke emissions and to minimize	To minimise potential dust nuisance	All construction works area	SENTX Contractor		<b>✓</b>			HKAQO and EIAO-TM Annex 4	Implemented



EIA Ref.	EM&A Ref	Measures Mitigation the Recomme Measure & Measure & Main Condition	the Recommended the Measures imp		-	im	ple	to ment ure? @		What requirements or standards for the measure to achieve?	Implementation Status and Remarks
						D	С	O/R	Α		
		gaseous emissions.									
4.10.1	AQ12	Dust monitoring once every 6 days	Ensure the dust generated from the project meets the air quality requirement	At monitoring locations shown in Figure 3.2a	SENTX Contractor		<b>✓</b>			HKAQO and EIAO-TM Annex 4	Implemented
Air Quality -	Operation	on, Restoration and Afterca	re Phases								
4.8.2	AQ13	Odour  • Enclosing the weighbridge area	To minimise odour nuisance	Weighbridge area	SENTX Contractor	<b>✓</b>		<b>✓</b>		EIAO-TM Annex 4	Not Applicable. As SENTX will receive construction waste only which is significantly less odorous, enclosing the weighbridge area is not necessary
4.8.2	AQ14	Providing a vehicle     washing facility before the     exit of SENTX and     providing sufficient     signage to remind RCV     drivers to pass through     the facility before leaving     SENTX	To minimise odour nuisance	Vehicle washing facility	SENTX Contractor	<b>✓</b>		<b>✓</b>		EIAO-TM Annex 4	Implemented
4.8.2	AQ15	Reminding the RCV drivers to empty the liquor collection sump and close the valve before leaving	To minimise odour nuisance	Tipping face	SENTX Contractor			<b>✓</b>		EIAO-TM Annex 4	Not Applicable. As SENTX will receive construction waste only, which



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		the time in a face				D	С	O/R	Α		in an lastically slam.
		the tipping face									is relatively dry, the amount of liquor generated is expected to minimal
4.8.2	AQ16	Washing down the area where spillage of RCV liquor is discovered promptly	To minimise odour nuisance	SENTX Site	SENTX Contractor			<b>✓</b>		EIAO-TM Annex 4	Not Applicable. As SENTX will receive construction waste only, which is relatively dry, the amount of liquor generated is expected to minimal.
4.8.2	AQ17	Reminding operators to properly maintain their RCVs and ensure that liquor does not leak from the vehicles	To minimise odour nuisance	SENTX Site	SENTX Contractor			<b>✓</b>		EIAO-TM Annex 4	Not Applicable. As SENTX will receive construction waste only, which is relatively dry, the amount of liquor generated is expected to minimal.
4.8.2	AQ18	Installation of landfill gas control system to enhance collection of landfill gas from the waste mass and hence minimise odour associated with fugitive landfill gas emissions	To minimise odour nuisance	SENTX Site	SENTX Contractor	<b>✓</b>		<b>√</b>	<b>✓</b>	EIAO-TM Annex 4	Implemented



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							С	O/R	Α		
4.8.2	AQ19	Progressive restoration of the areas which reach the finished profile (a final capping system including an impermeable liner will be put in place) and installation of a permanent landfill gas extraction system	To minimise odour nuisance	SENTX Site	SENTX Contractor	<b>✓</b>		<b>~</b>	•	EIAO-TM Annex	Implemented
4.8.2	AQ20	Installing deodorizers along the site boundary adjacent to the ASRs	To minimise odour nuisance	SENTX Site boundary	SENTX Contractor			<b>✓</b>	<b>✓</b>	EIAO-TM Annex 4	Not Applicable. As SENTX will receive construction waste only which is significantly less odorous, installation of deodorizers is not necessary.
4.8.2	AQ21	Erecting a vertical barrier, wall or structure softened by planting rows of trees/shrubs or landscape feature along the site boundary, particularly in the areas near the ASRs	To minimise odour nuisance	SENTX Site boundary	SENTX Contractor	<b>~</b>		<b>✓</b>	✓	EIAO-TM Annex 4	Implemented
4.8.2 and SENTX latest design	AQ22	Maintaining the size of the active tipping face not greater than 1,200 m²	To minimise odour nuisance	Active tipping face	SENTX Contractor			✓		EIAO-TM Annex 4	Implemented



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4.8.2	AQ23	Promptly covering the MSW with soil or selected inert materials to control odour emissions	To minimise odour nuisance	Active tipping face	SENTX Contractor			√ · · · · · · · · · · · · · · · · · · ·	EIAO-TM Annex 4	Not Applicable. SENTX will not receive MSW.
4.8.2	AQ24	<ul> <li>Maintaining the size of the special waste trench not greater than 6m (I) × 2.5m (w)</li> </ul>	To minimise odour nuisance	Special waste trench	SENTX Contractor			✓	EIAO-TM Annex 4	Not Applicable. SENTX will not have any special waste trench.
4.8.2 and SENTX latest design	AQ25	Covering daily covered area with a tarpaulin sheet or 300mm of soil after the landfill operating hours	To minimise odour nuisance	Daily covered area	SENTX Contractor			✓	EIAO-TM Annex 4	Implemented
4.8.2	AQ26	Covering special waste trench with 600 mm of soil and an impervious liner after 5 pm	To minimise odour nuisance	Special waste trench	SENTX Contractor			✓	EIAO-TM Annex 4	Not Applicable. SENTX will not have any special waste trench.
4.8.2	AQ27	Covering the non-active tipping face with 600mm of soil and an impermeable liner (on top of the intermediate cover), which will not only control odour emissions from landfilled waste but also enhance landfill gas extraction by the landfill gas extraction system	To minimise odour nuisance	Intermediate cover	SENTX Contractor			✓	EIAO-TM Annex 4	Implemented



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4.8.2	AQ28	Applying deodorizers or odour suppression agents to control odour emissions from the active tipping face and special waste trench, if any, through spraying or fogging equipment	To minimise odour nuisance	Active tipping face and special waste trench	SENTX Contractor	D	C	O/R ✓	Α	EIAO-TM Annex 4	Not Applicable. As SENTX will receive construction waste only which is significantly less odorous, installation of deodorizers is not necessary. Moreover, SENTX will not have any special waste trench.
4.8.2	AQ29	Providing a mobile cover with retractable or suitable opening to cover up the opening of the special waste trench except during waste deposition and a suitable odour removal unit. The mobile cover should be equipped with powered extraction and suitable odour removal unit for purifying the trapped gas inside the trench before release into the atmosphere	To minimise odour nuisance	Special waste trench	SENTX Contractor			✓		EIAO-TM Annex 4	Not Applicable. SENTX will not have any special waste trench.



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4.8.2 and SENTX latest design	AQ30	Providing a thermal oxidizer for the leachate treatment plant	To minimise odour nuisance as a result of breakdown of thermal oxidizer	Leachate treatment plant	SENTX Contractor	<b>✓</b>		<b>~</b>	4	EIAO-TM Annex 4	Implemented
4.8.2 and SENTX latest design	AQ31	Enclosing all the leachate storage and treatment tanks (except for the Sequential Batch Reactor (SBR) or Membrane Bioreactor (MBR) tanks) and diverting the exhaust air from these tanks to a thermal oxidizer or flare to avoid potential odour emissions from the LTP	To minimise odour nuisance	Leachate treatment plant	SENTX Contractor	<b>✓</b>		<b>✓</b>	<b>✓</b>	EIAO-TM Annex 4	Implemented
4.8.2	AQ32	Rescheduling of waste filling activities on-site by avoiding waste filling activities carrying out at the northern area of the site in the summer months between July to November	To minimise odour nuisance	SENTX Site	SENTX Contractor			~		EIAO-TM Annex 4	Not Applicable. As SENTX will receive construction waste only which is significantly less odorous, rescheduling of waste filling activities is not necessary.
4.8.2 and SENTX latest design	AQ33	Dust, Gaseous Emission and LFG including Volatile Organic Compounds (VOCs)	To minimise dust nuisance	SENTX Site	SENTX Contractor			<b>✓</b>		HKAQO and EIAO-TM Annex 4	Implemented



EIA Ref.	EM&A Ref	Measures/ Mitigation Measures  I  Keeping the main haul	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?	im	eası	ment ure? ¤	)	What requirements or standards for the measure to achieve?	Implementation Status and Remarks
						D	С	O/R	Α		
		road to the waste filling area wet by regular watering;									
4.8.2	AQ34	Compacting the exposed daily and intermediate covered areas well to avoid fugitive dust emission;	To minimise dust nuisance	SENTX Site	SENTX Contractor			<b>✓</b>		HKAQO and EIAO-TM Annex 4	Implemented
4.8.2	AQ35	Limiting the vehicle speed within SENTX site boundary;	To minimise dust nuisance	SENTX Site	SENTX Contractor			✓		HKAQO and EIAO-TM Annex 4	Implemented
4.8.2	AQ36	Providing vehicle washing bay to avoid vehicles carrying dust to public roads;	To minimise dust nuisance	SENTX Site	SENTX Contractor			<b>✓</b>		HKAQO and EIAO-TM Annex 4	Implemented
4.8.2	AQ37	Switching off the engine when the diesel-driven equipment is idling;	To minimise gaseous emissions	SENTX Site	SENTX Contractor			<b>✓</b>	<b>✓</b>	-	Implemented
4.8.2	AQ38	Maintaining the construction equipment properly to avoid any black smoke emissions;	To minimise gaseous emissions	SENTX Site	SENTX Contractor			<b>✓</b>	<b>√</b>	-	Implemented
4.8.2	AQ39	Providing sufficient underground landfill gas collection system to capture the landfill gas	To minimise gaseous emissions,	SENTX Site	SENTX Contractor			<b>✓</b>	<b>√</b>	EIAO-TM Annex 4	Implemented



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		generated as much as	including LFG			D	С	O/R	Α		
4.8.2	AQ40	<ul> <li>possible; and</li> <li>Periodic inspections of the final cover should be undertaken to ensure that the capping layer is in good conditions at all times.</li> </ul>	gaseous	SENTX Site	SENTX Contractor			<b>✓</b>	<b>√</b>	EIAO-TM Annex 4	Implemented
4.10.2	AQ41	Monitoring of ambient TSP once every 6 days	Ensure the dust emission from the project meets the dust requirement	At monitoring locations shown in Figure 11.3a	SENTX Contractor		<b>√</b>	<b>✓</b>		HKAQO and EIAO-TM Annex 4	Implemented
4.10.2	AQ42	Monitoring of ambient VOCs, ammonia and H <sub>2</sub> S, quarterly	Ensure the gaseous emission from the project meets the air quality requirement	At monitoring locations shown in Figure 11.3a	SENTX Contractor			<b>V</b>	<b>V</b>	Odour thresholds or 1% of Occupational Exposure Limit (OEL) as stipulated in the "UK Health and Safety Executive (HSE) EH 40/05 Occupational Exposure Limits", whichever is lower.	Implemented



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4.10.2 and SENTX latest design	AQ43	Monitoring of parameters for thermal oxidizer, flares and generator in accordance with requirements stated in Tables 3.4a, 3.5a and 3.6a of the EM&A Manual respectively.	Ensure the gaseous emission from the project meets the air quality requirement	At the flares and thermal oxidizer stacks when they are in operation	SENTX Contractor	D	С	O/R	<b>A</b> ✓ (2)	Emission Limits specified in Contract	Implemented
4.10.2	AQ44	To confirm design assumption of ammonia, it is recommended that the ammonia concentration in the flue gas of the thermal oxidiser be monitored during the commissioning stage of the thermal oxidiser. If required, an emission standard will be set for ammonia for the thermal oxidiser based on the monitoring results. If no ammonia is detected in the flue gas during the decommissioning stage, the monitoring of ammonia in the flue gas	Ensure the gaseous emission from the project meets the air quality requirement	At the thermal oxidizer stack during commissioning . If ammonia is detected during commissioning stage, the monitoring will continue.	SENTX Contractor					Emission Limits determined during commissioning stage	Implemented

<sup>(2)</sup> For LFG flare and LFG generator only.



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		of the thermal oxidiser				D	С	O/R	Α		
		could be discontinued.									
4.10.2 and SENTX latest design	AQ45	accordance with requirements stated in Table 3.7a of the EM&A Manual.  Monitoring of	odour emission from the project meets the odour requirement	Site boundary	SENTX Contractor			<b>✓</b>		EIAO-TM Annex 4	Implemented
4.10.2	AQ46	Monitoring of meteorological station, continuously	Collect site specific meteorological data		SENTX Contractor		<b>✓</b>	<b>✓</b>	<b>✓</b>	-	Implemented
Noise – Cons	truction	Phase									
5.7.1	N1	Adopt good site practice listed below:  • Only well-maintained plant will be operated onsite and plant should be serviced regularly during the construction program;	To minimise potential construction noise nuisance.	All construction works area	SENTX Contractor		<b>✓</b>			Noise Control Ordinance (NCO) and EIAO-TM Annex 5	Implemented
	Silencers or mufflers on construction equipment should be utilized and will be properly maintained during the construction program;										
		Mobile plant, if any, will be sited as far from NSRs as	will be								



EIA Ref. EM&A	EM&A Ref	Measures/ Mitigation Measures	Measures/ Mitigation the the Measures		Location of the Measures	Who to implement the measure?	me	ment : ire? @	What requirements or standards for the measure to achieve?	Implementation Status and Remarks
		possible;				D	C	O/K		
		Machines and plant (such as trucks) that may be in intermittent use will be shut down between work periods or should be throttled down to a minimum;								
		Plant known to emit noise strongly in one direction will, wherever possible, be orientated so that the noise is directed away from the nearby NSRs; and								
		Material stockpiles and other structures will be effectively utilised, wherever practicable, in screening noise from onsite construction activities.								
5.8	N2	Weekly noise monitoring	Ensure noise generated from the project meets the criteria	At monitoring locations shown in Figure 6.4a	SENTX Contractor		✓		Noise Control Ordinance (NCO) and EIAO-TM Annex 5	Implemented



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Noise - Ope	eration/Re	estoration Phase							'
5.7.2	N3	Adopt good site practice listed below:  • Choose quieter PME;	To minimise potential operational noise nuisance.	Within the SENTX Site	SENTX Contractor		<b>V</b>	Noise Control Ordinance (NCO) and EIAO-TM Annex 5	Implemented
		Include noise levels specification when ordering new plant items;						-	Implemented
		<ul> <li>Locate fixed plant items or noise emission points away from the NSRs as far as practicable;</li> </ul>						-	Implemented
		<ul> <li>Locate noisy machines in completely enclosed plant rooms or buildings; and</li> </ul>						-	Implemented
		Develop and implement a regularly scheduled plant maintenance programme so that plant items are properly operated and serviced. The programme should be implemented by properly trained personnel.						-	Implemented
5.8	N4	Weekly noise monitoring	Ensure noise generated from the project	At monitoring locations	SENTX Contractor		<b>√</b>	Noise Control Ordinance (NCO) and	Implemented



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			meets the	shown in		D	С	O/R	Α	EIAO-TM Annex	
			criteria	Figure 6.4a						5	
Water Qual	ity – Cons	truction Phase									
6.8.1	WQ1	<ul> <li>Construction Runoff</li> <li>Exposed soil areas will be minimised to reduce the contamination of runoff and erosion.</li> </ul>	To minimise potential water quality impacts arising from the construction works	All construction works area	SENTX Contractor		•			ProPECC PN 1/94 EIAO-TM Annex 6	Implemented
6.8.1	WQ2	Perimeter channels will be constructed in advance of site formation works and earthworks and intercepting channels will be provided for example along the edge of excavation.	To minimise potential water quality impacts arising from the construction works	All construction works area	SENTX Contractor	<b>✓</b>	<b>✓</b>			ProPECC PN 1/94 Water Pollution Control Ordinance (WPCO) EIAO-TM Annex 6	Implemented
6.8.1	WQ3	Silt removal facilities, channels and manholes will be maintained and the deposited silt and grit should be removed regularly to ensure they are functioning properly at all times.	arising from the construction works	All construction works area	SENTX Contractor		<b>✓</b>			ProPECC PN 1/94 WPCO EIAO-TM Annex 6	Deficiency of mitigation measures but rectified by the Contractor
6.8.1	WQ4	Temporary covers such as tarpaulin will also be provided to minimise the	To minimise potential water quality impacts arising from the	All construction works area	SENTX Contractor		<b>√</b>			ProPECC PN 1/94 WPCO	Implemented



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						D	С	O/R	Α		
		runoff.	construction works								
6.8.1	WQ5	The surface runoff contained any oil and grease will pass through the oil interceptors.	To minimise potential water quality impacts arising from the construction works	All construction works area	SENTX Contractor		<b>✓</b>			ProPECC PN 1/94 WPCO EIAO-TM Annex 6	Implemented
6.8.1	WQ6	All sewer and drains will be sealed to prevent building debris, soil etc from entering public sewers/drains before commencing any demolition works	To minimise potential water quality impacts arising from the demolition works	Infrastructure area at existing SENT Landfill	SENTX Contractor		<b>✓</b>			ProPECC PN 1/94 WPCO EIAO-TM Annex 6	Not applicable
6.8.1	WQ7	During the excavation works for the twin drainage tunnels, the recycle water for cooling the cutter head of the TBM will be conveyed to the sedimentation tanks for treatment and most of the treated water will be reused, where applicable and as much as possible, in the boring operations.	To minimise potential water quality impacts arising from the tunnel works	Tunnel boring sites	SENTX Contractor		•			ProPECC PN 1/94 WPCO EIAO-TM Annex 6	Not applicable. Excavation of drainage tunnels is not required in the latest landfill design.
6.8.1	WQ8	The fuel and waste lubricant oil from the on-	To minimise potential water	SENTX Site	SENTX Contractor		✓			ProPECC PN 1/94	Implemented



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						D	С	O/R	Α		
		site maintenance of machinery and equipmer will be collected by a licensed chemical waste collector.	quality impacts t arising from improper handling of fuel and oil							WPCO Waste Disposal Ordinance (WDO)	
6.8.1	WQ9	Implementation of excavation schedules, lining and covering of excavated stockpiles	To minimise contaminated stormwater runoff from the SENTX Site	All construction works	SENTX Contractor		<b>√</b>			ProPECC PN 1/94 WPCO EIAO-TM Annex 6	Implemented
6.13	WQ10	Monitoring of surface water quality will be conducted on a regular basis as stated in the EM&A Manual.	To minimise potential water quality impacts on surface water arising from the construction works	SENTX Site	SENTX Contractor		✓			WPCO Water-TM	Implemented
6.8.2	WQ11	<ul> <li>Sewage Effluents</li> <li>Sufficient chemical toilets will be provided for the construction workforce.</li> </ul>	To minimise potential water quality impacts arising from the sewage effluents	SENTX Site	SENTX Contractor		✓			WPCO	Implemented
6.8.2	WQ12	Untreated sewage will not be allowed to discharge into the surrounding wat body.	potential water	SENTX Site	SENTX Contractor		<b>√</b>			WPCO WDO	Deficiency of mitigation measures but rectified by the Contractor
6.8.2	WQ13	A licensed waste collecto	To minimise potential water	SENTX Site	SENTX Contractor		✓			WPCO	Implemented



EIA Ref.	EM&A Ref	Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?	im	-			What requirements or standards for the measure to achieve?	Implementation Status and Remarks
						D	С	O/R	Α		
		will be employed to clean the chemical toilets on a regular basis.	quality impacts arising from the sewage effluents							WDO	
Water Quali	ty – Oper	ation/Restoration and Afte	rcare Phases								
6.9.1	WQ14	• Inspections of the drainage system, sand traps, settlement ponds and surface water channels will be performed regularly to identify areas necessary for maintenance, cleaning or repair.	To minimise potential water quality impacts on surface water arising from the landfill operations.	SENTX Site	SENTX Contractor			<b>✓</b>		WPCO Technical Memorandum Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Inshore Waters (Water- TM) EIAO-TM Annex	Deficiency of mitigation measures but rectified by the Contractor
6.9.1	WQ15	Regular maintenance and replacement, if required, of the HDPE liner will be conducted to prevent degradation from affecting the performance of the capping system.	To minimise potential water quality impacts on surface water arising from the landfill operations.	SENTX Site	SENTX Contractor			<b>✓</b>		WPCO Water-TM EIAO-TM Annex 6	Implemented
6.9.1	WQ16	Monitoring of surface water quality will be conducted on a regular	To minimise potential water quality impacts on surface water	SENTX Site	SENTX Contractor			✓	<b>√</b>	WPCO Water-TM	Implemented



	EM&A Ref	f Measures/ Mitigation Measures	the Recommended the Measures im		the measure? (1)					What requirements or standards for the measure to achieve?	Implementation Status and Remarks
						D	С	O/R	Α		
		basis as stated in the EM&A Manual.	arising from the landfill operations.								
6.9.2 and SENTX latest design	WQ17	<ul> <li>Groundwater Management</li> <li>The groundwater         management facilities         including the groundwater         monitoring wells will be         inspected regularly during         routine groundwater         monitoring programme.</li> </ul>	To minimise potential water quality impacts on groundwater arising from the landfill operations.	SENTX Site	SENTX Contractor			•	<b>✓</b>	WPCO Water-TM EIAO-TM Annex 6	Implemented
6.9.2	WQ18	Monitoring of groundwater water quality will be conducted on a regular basis as stated in the EM&A Manual.	To minimise potential water quality impacts on groundwater arising from the landfill operations.	SENTX Site	SENTX Contractor			<b>✓</b>	<b>V</b>	WPCO Water-TM EIAO-TM Annex 6	Implemented
SENTX latest design	WQ19	<ul> <li>Sewage</li> <li>All sewage from the operation staff will be diverted to the LTP for treatment or public sewer, if available.</li> </ul>	To ensure proper handling of sewage	SENTX Site	SENTX Contractor			<b>V</b>	<b>√</b>	-	Implemented
6.9.3	WQ20	The leachate pump houses and related ancillary	To minimise potential water quality impacts on surrounding	Leachate pump houses and related	SENTX Contractor			<b>✓</b>	<b>√</b>	WPCO Water-TM EIAO-TM Annex 6	Implemented



EIA Ref. EM8 Ref	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?		ple			What requirements or standards for the measure to achieve?	Implementation Status and Remarks
						D	С	O/R	Α		
		equipment will be inspected regularly and repairs, if necessary.	water bodies arising from the landfill operations.  To minimise	ancillary equipment							
6.9.3	WQ21	For equipment such as pumps that require routine scheduled maintenance, the maintenance will be performed following manufacturer's recommended frequency.	To minimise potential water quality impacts on surrounding water bodies arising from the landfill operations.	Leachate pumps	SENTX Contractor			<b>✓</b>	<b>✓</b>	WPCO Water-TM	Implemented
6.9.3	WQ22	Preventive maintenance will be implemented so that the possibility for forced shutdown during wet season will be kept to minimal.	To minimise potential water quality impacts on surrounding water bodies arising from the landfill operations.	Leachate treatment plant	SENTX Contractor			<b>✓</b>	<b>√</b>	WPCO Water-TM EIAO-TM Annex 6	Implemented
6.9.3	WQ23	Emergency procedures or a contingency plan will be established when the LTP is malfunctioned.	To minimise potential water quality impacts on surrounding water bodies arising from the landfill operations.	Leachate treatment plant	SENTX Contractor			<b>✓</b>	<b>✓</b>	WPCO Water-TM EIAO-TM Annex 6	Implemented



EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?	me	plei	to ment ure? a		What requirements or standards for the measure to achieve?	Implementation Status and Remarks
6.9.3 and SENTX latest design	WQ24	There will be sufficient redundancy in the system to handle the leachate flow even if one treatment train is down for maintenance. The leachate may be required to temporarily store within the landfill if the leachate storage lagoon are full and leachate cannot be transported to the LTP for treatment.	To minimise potential water quality impacts on surrounding water bodies arising from the landfill operations.	Leachate treatment plant	SENTX Contractor			<b>√</b>	~	WPCO Water-TM EIAO-TM Annex 6	Implemented
6.13	WQ25	Monitor the quality of effluent discharged from the LTP	To ensure discharge quality comply with WPCO requirement	Leachate treatment plant discharge point	SENTX Contractor			<b>~</b>	<b>✓</b>	WPCO Water-TM	Implemented
6.10.1	WQ26	Potential Leakage of Leachate     Regular groundwater quality monitoring will be carried out to monitor the performance of the leachate containment system.	To minimise potential water quality impacts on surrounding water bodies arising from the landfill operations.	SENTX Site	SENTX Contractor			<b>✓</b>	<b>√</b>	WPCO Water-TM	Implemented
6.10.1	WQ27	Maintenance and replacement of the capping system should be	To minimise potential water quality impacts on surrounding	SENTX Site	SENTX Contractor			✓	<b>✓</b>	WPCO Water-TM	Implemented



EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?	im		ment the ure? <sup>(1)</sup>		What requirements or standards for the measure to achieve?	Implementation Status and Remarks
						D	С	O/R	Α		
		carried out, if necessary, to prevent control infiltration and leachate seepage from any damaged cap.	water bodies arising from the leachate leakage.							6	
6.10.1	WQ28	Maintaining control of the leachate level through extraction	To minimise potential water quality impacts on surrounding water bodies arising from surface breakout of leachate.	SENTX Site	SENTX Contractor			<b>√</b>	<b>✓</b>	WPCO Water-TM EIAO-TM Annex 6	Implemented
Waste Mana	gement -	Construction Phase		·							
7.6.1	WM1	All the necessary waste disposal permits are obtained prior to the commencement of construction work.	To ensure compliance with relevant statutory requirements	Before construction works commence	SENTX Contractor	<b>✓</b>	<b>✓</b>			WDO	Implemented
7.6.1	WM2	Management of Waste Disposal The construction contractor will open a billing account with the EPD. Every construction waste or public fill load to be transferred to the Government waste	To ensure that adverse environmental impacts are prevented	SENTX Site	SENTX Contractor		<b>✓</b>			WDO Waste Disposal (Charges for Disposal of Construction Waste) Regulation; Works Bureau Technical Circular	Implemented



EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?	measure? (1) or standard for the measure to		nplement the neasure? (1)		requirements or standards	Implementation Status and Remarks
						D	С	O/R	Α		
		disposal facilities such as public fill reception facilities, sorting facilities, landfills will required a valid "chit" which contains the information of the account holder to facilitate waste transaction recording and billing to the waste producer. A trip-ticket system will also be established to monitor the disposal of construction waste at the SENT Landfill and to control fly-tipping. The trip-ticket system will be included as one of the contractual requirements and implemented by the contractor.  A recording system for the amount of waste generated, recycled and disposed of (including the disposal sites) will be established.								No.31/2004; and Annex 5 and Annex 6 of Appendix G of ETWBTC No. 19/2005)	



EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?	im	implement the measure? (1)			What requirements or standards for the measure to achieve?	Implementation Status and Remarks
						D	С	O/R	Α		
7.6.1	WM3	Measures for the reduction of construction waste generation  Inert and non-inert construction waste will be segregated and stored in different containers or skips to facilitate reuse or recycling of the inert waste and proper disposal of the non-inert construction waste. Specific areas of the work site will be designated for such segregation and storage if immediate use is not practicable.	To reduce construction waste generation	SENTX Site	SENTX Contractor					WDO EIAO-TM Annex 7	Implemented
7.6.1	WM4	Chemical Waste The construction contractor will register as a chemical waste producer with the EPD. Chemical waste will be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes.	To ensure proper handling of chemical waste	SENTX Site	SENTX Contractor		~			WDO Code of Practice on the Packaging, Handling and Storage of Chemical Wastes	Implemented



EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?	im	When to implement the measure? (1)			What requirements or standards for the measure to achieve?	Implementation Status and Remarks
7.6.1	WM5	Sewage  An adequate number of portable toilets will be provided at the site to ensure that sewage from site staff is properly collected. The portable toilets will be desludged and maintained regularly by a specialist contractor.	To ensure proper handling of sewage	SENTX Site	SENTX Contractor	D	C	O/R	A	WDO EIAO-TM Annex 7	Implemented
7.6.1 and SENTX latest design	WM6	General Refuse  General refuse will be stored in enclosed bins separately from construction and chemical wastes. The general refuse will be delivered to a transfer station or other landfill, separately from construction and chemical wastes, on a daily basis to reduce odour, pest and litter impacts.  Recycling bins will be provided at strategic	To ensure proper handling of general refuse	SENTX Site	SENTX Contractor		<b>V</b>			WDO EIAO-TM Annex 7	Deficiency of mitigation measures but rectified by the Contractor



EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?	im	eası	ment ure? <sup>4</sup>	ent the requirements or standards for the measure to achieve?		Implementation Status and Remarks
		locations to facilitate recovery of aluminium can and waste paper from the SENTX Site. Materials recovered will be sold for recycling.				D		O/R	A		
7.6.1	WM7	Staff Training  At the commencement of the construction works, training will be provided to workers on the concepts of site cleanliness and on appropriate waste management procedures, including waste reduction, reuse and recycling.	To ensure that adverse environmental impacts are prevented	SENTX Site	SENTX Contractor		<b>✓</b>				Implemented
7.8	WM8	Environmental Monitoring & Audit Requirements  Weekly audits of the waste management practices will be carried out during the construction phase. The audits examine all aspects of waste management including	To ensure that adverse environmental impacts are prevented	SENTX Site	SENTX Contractor		<b>✓</b>			WDO	Implemented



EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?	im	nplement the easure? (1)			What requirements or standards for the measure to achieve?	Implementation Status and Remarks
		waste generation, storage,				D	С	O/R	Α		
		recycling, transport and disposal.									
Waste Manag	ement -	Operation/Restoration Pha	ase	I	I					ı	
7.6.2 and SENTX latest design	WM9	Sludge In case off-site disposal is required, the Contractor will ensure that sludge generated from the LTP will be delivered in closed container to other waste disposal facility e.g. other landfills or a sludge treatment facility, for proper disposal on a daily basis.	To ensure proper handling of sludge	SENTX Site	SENTX Contractor			<b>✓</b>		WDO EIAO-TM Annex 7	Not applicable
7.6.2	WM10	Chemical Waste  The construction contractor will register as a chemical waste producer with the EPD. Chemical waste will be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes.	To ensure proper handling of chemical waste	SENTX Site	SENTX Contractor			<b>✓</b>		WDO EIAO-TM Annex 7 Code of Practice on the Packaging, Handling and Storage of Chemical Wastes	Implemented



EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?	imi	When to implement the measure? (a)			requirements or standards for the measure to achieve?			requirements or standards for the measure to	Implementation Status and Remarks
7.6.2	WM11	Sewage All sewage from the operation staff will be diverted to the LTP for treatment or public sewer, if available.	To ensure proper handling of sewage	SENTX Site	SENTX Contractor	D	С	O/R ✓	Α	WDO EIAO-TM Annex 7	Moved to mitigation measure under water quality WQ19. It is a measure for water quality rather than waste management.			
7.6.2 and SENTX latest design	WM12	General Refuse General refuse will be stored in enclosed bins and disposed of at other landfills or transfer station on a daily basis to reduce odour, pest and litter impacts. Recycling bins will be provided at strategic locations to facilitate recovery of aluminium can and waste paper from the SENTX Site. Materials recovered will be sold for recycling.	To ensure proper handling of general refuse	SENTX Site	SENTX Contractor			✓		WDO EIAO-TM Annex 7	Implemented			



EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?	_	pler asu		What requirements or standards for the measure to achieve?	Implementation Status and Remarks
Landfill Gas H	lazards ·	- Design and Construction I	Phase							
8.6.2 and SENTX latest design	LFG1	Precautionary measures to be adopted by the contractors at the Project site and the adjacent development site within the landfill consultation zone are outlined in Paragraphs 8.3 to 8.49 of EPD's Landfill Gas Hazard Assessment Guidance Notes (the Guidance Note). Those precautionary measures applicable to the SENTX will be confirmed in the detailed Qualitative Landfill Gas Hazard Assessment to be submitted by the contractor.	'	All construction works area	SENTX Contractor		•		Paragraphs 8.3 to 8.49 of EPD's Landfill Gas Hazards Assessment Guidance Note EIAO-TM Annex 7	Implemented
8.6.2	LFG2	Monitoring will be undertaken when construction works are carried out in confined space within the consultation zone with reference to the monitoring requirements and procedures specified in	To protect workers from landfill gas risk	Confined space within the construction works area	SENTX Contractor		<b>✓</b>			Implemented



EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?	im me	plement the reasure? (1)			What requirements or standards for the measure to achieve?	Implementation Status and Remarks
		Paragraphs 8.23 to 8.28 of EPD's Guidance Note will be followed.  In the event of the trigger levels being exceeded, it is recommended that a person, such as the Safety Officer, is nominated, with deputies, to be responsible for dealing with any emergency which may occur due to landfill gas. In an emergency situation, the nominated person, or his deputies, shall have the necessary authority and shall ensure that the confined space is evacuated and the necessary works implemented for reducing the concentrations of gas. The appropriate organisations shall be contact.									
8.6.3	LFG4	Implementation of engineering measures	To protect workers from landfill gas risk	SENTX Site	SENTX Contractor	<b>✓</b>	✓	<b>✓</b>	<b>✓</b>	EIAO-TM Annex 7	Implemented



EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?	im	mplement the measure? (1)			What requirements or standards for the measure to achieve?	Implementation Status and Remarks
						D	С	O/R	Α		
		according to Contract Specification requirements. These measures will include the placement of liner and installation of landfill gas management system to contain, manage and control landfill gas.									
8.6.3	LFG5	Engineering measures to significant engineering measures will be required in the design of the SENTX to protect the staff working in the infrastructure area. These measures include a combination of passive and active systems (examples are recommended in EPD's Guidance Notes).  Landfill gas monitoring boreholes will be installed at the edge of the waste slope between the waste and the new infrastructure area to	To protect workers from landfill gas risk	Infrastructure Area	SENTX Contractor	•	<b>V</b>			EPD's Landfill Gas Hazards Assessment Guidance Note EIAO-TM Annex 7	Implemented



EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?	im	-	to ment t ure? <sup>(1)</sup>		What requirements or standards for the measure to achieve?	Implementation Status and Remarks
						D	С	O/R	Α		
		monitor the migration of landfill gas, if any.									
Landfill Gas H	azards ·	- Operation, Restoration an	d Aftercare Phas	ses	1						
8.6.4	LFG7	To train and ensure staff to take appropriate precautions at all times when entering enclosed spaces or plant rooms. Undertake regular monitoring of landfill gas at the perimeter boreholes to detect if there are any signs of off-site landfill gas migration. Prepare and implement emergency plan in case off-site landfill gas migration is detected.  A permanent gas monitoring system with alarm will be installed and operated in all occupied on-site buildings.	To protect workers from landfill gas risk	SENTX Site	SENTX Contractor					Landfill Gas Hazards Assessment Guidance Note	Implemented
8.7 and SENTX latest design	LFG8	Environmental Monitoring & Audit Requirements  Undertake regular monitoring of landfill gas within the	To protect workers from landfill gas risk	Within the SENTX and along the SENTX boundary	SENTX Contractor			✓	<b>√</b>	Landfill Gas Hazards Assessment Guidance Note	Implemented



EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?	im	-	to ment ure? a		What requirements or standards for the measure to achieve?	Implementation Status and Remarks
		SENTX and along the SENTX				D	С	O/R	Α		
		boundary as required by the Contract Specification.									
Ecology - C	Construction	on Phase								1	
9.10.2	EC1	Measures to control construction runoff:  Exposed soil areas will be minimised to reduce the contamination of runoff and erosion;	To minimise potential water quality impacts affecting ecological resources	All construction works area	SENTX Contractor		<b>✓</b>			EIAO-TM Annex 16 ProPECC PN 1/94 Water Pollution Control Ordinance (WPCO) EIAO-TM Annex 6	Implemented
		To prevent stormwater runoff from washing across exposed soil surfaces, perimeter channels will be constructed in advance of site formation works and earthworks and intercepting channels will be provided for example along the edge of excavation;								-	Implemented



EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?	im <sub>l</sub>	ası	ment ure? º	)	What requirements or standards for the measure to achieve?	Implementation Status and Remarks
		Silt removal facilities, channels and manholes will be maintained and the deposited silt and grit will be removed regularly to ensure they are functioning properly at all				D	С	O/R	A	-	Deficiency of mitigation measures but rectified by the Contractor
		<ul> <li>times;</li> <li>Temporary covers such as tarpaulin will also be provided to minimise the generation of high suspended solids runoff;</li> </ul>	-							-	Implemented
		The surface runoff contained any oil and grease will pass through the oil interceptors; and,								-	Implemented
		Control measures, including implementation of excavation schedules, lining and covering of excavated stockpiles will be implemented to minimise contaminated stormwater run-off from the SENTX site.								-	Implemented



EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?	im		ment ture? ©		What requirements or standards for the measure to achieve?	Implementation Status and Remarks
9.10.2 and SENTX latest design	EC2	<ul> <li>Good Construction Practice:</li> <li>Fences along the boundary of the SENTX Site will be erected before the commencement of works to prevent vehicle movements, and encroachment of personnel, onto adjacent areas.</li> <li>The work site boundaries will be regularly checked to ensure that they are not breached and that damage does not occur to surrounding areas.</li> </ul>	To minimise potential ecological impacts arising from the Project	SENTX Site	SENTX Contractor		1			EIAO-TM Annex 16	Reminder was given to the Contractor
Ecology - Ope	eration,	Restoration and Aftercare I	Phases	l						I	I.
9.10.2	EC3	Measures for Controlling Leakage of Landfill Leachate Leachate will be contained within the SENTX Site by the proposed impermeable leachate containment system and collected by the installation of drainage system to prevent potential	To minimise potential water quality impact affecting the ecological resources	SENTX Site	SENTX Contractor			<b>✓</b>	<b>V</b>	EIAO-TM Annex 16 WPCO Water-TM EIAO-TM Annex 6	Implemented



EC4	migration of leachate to habitats in the vicinity.  Measures for Controlling				D	С	O/R	Α		
EC4	habitats in the vicinity.						5,10	А		
EC4	C4 <u>Measures for Controlling</u> To	To minimise S								
	Migration of Landfill Gas  Disturbance to habitat in the vicinity and associated wildlife due to migration of landfill gas will be prevented by proper management of the landfill gas generated from the SENTX. Ignition fires will be prohibited to occur within the boundary of the SENTX Site. Surface emission and off-site migration of landfill gas will be regularly monitored.	To minimise potential landfill gas migration affecting ecological resources	SENTX Site	SENTX Contractor			<b>√</b>		EIAO-TM Annex 16	Implemented
EC5	The following compensation planting is recommended as the mitigation measures for the habitat affected due to the SENTX:	Compensation of habitat loss due to the Project	SENTX Site	SENTX Contractor			<b>√</b>	<b>~</b>	EIAO-TM Annex 16	Not applicable
	EC5	vicinity and associated wildlife due to migration of landfill gas will be prevented by proper management of the landfill gas generated from the SENTX. Ignition fires will be prohibited to occur within the boundary of the SENTX Site. Surface emission and off-site migration of landfill gas will be regularly monitored.  EC5 The following compensation planting is recommended as the mitigation measures for the habitat affected due to	vicinity and associated wildlife due to migration of landfill gas will be prevented by proper management of the landfill gas generated from the SENTX. Ignition fires will be prohibited to occur within the boundary of the SENTX Site. Surface emission and off-site migration of landfill gas will be regularly monitored.  EC5  The following compensation planting is recommended as the mitigation measures for the habitat affected due to the SENTX:  Provision of 6 ha of	vicinity and associated wildlife due to migration of landfill gas will be prevented by proper management of the landfill gas generated from the SENTX. Ignition fires will be prohibited to occur within the boundary of the SENTX Site. Surface emission and off-site migration of landfill gas will be regularly monitored.  ECS  The following compensation planting is recommended as the mitigation measures for the habitat affected due to the SENTX:  Provision of 6 ha of	vicinity and associated wildlife due to migration of landfill gas will be prevented by proper management of the landfill gas generated from the SENTX. Ignition fires will be prohibited to occur within the boundary of the SENTX Site. Surface emission and off-site migration of landfill gas will be regularly monitored.  EC5  The following compensation planting is recommended as the mitigation measures for the habitat affected due to the SENTX:  Provision of 6 ha of	vicinity and associated wildlife due to migration of landfill gas will be prevented by proper management of the landfill gas generated from the SENTX. Ignition fires will be prohibited to occur within the boundary of the SENTX Site. Surface emission and off-site migration of landfill gas will be regularly monitored.  EC5 The following compensation planting is recommended as the mitigation measures for the habitat affected due to the SENTX:  Provision of 6 ha of	vicinity and associated wildlife due to migration of landfill gas will be prevented by proper management of the landfill gas generated from the SENTX. Ignition fires will be prohibited to occur within the boundary of the SENTX Site. Surface emission and off-site migration of landfill gas will be regularly monitored.  EC5 The following compensation planting is recommended as the mitigation measures for the habitat affected due to the SENTX:  Provision of 6 ha of	vicinity and associated wildlife due to migration of landfill gas will be prevented by proper management of the landfill gas generated from the SENTX. Ignition fires will be prohibited to occur within the boundary of the SENTX Site. Surface emission and off-site migration of landfill gas will be regularly monitored.  ECS  The following compensation planting is recommended as the mitigation measures for the habitat affected due to the SENTX:  Provision of 6 ha of	vicinity and associated wildlife due to migration of landfill gas will be prevented by proper management of the landfill gas generated from the SENTX. Ignition fires will be prohibited to occur within the boundary of the SENTX Site. Surface emission and off-site migration of landfill gas will be regularly monitored.  ECS  The following compensation planting is recommended as the mitigation measures for the habitat affected due to the SENTX:  Provision of 6 ha of	vicinity and associated wildlife due to migration of landfill gas will be prevented by proper management of the landfill gas generated from the SENTX. Ignition fires will be prohibited to occur within the boundary of the SENTX Site. Surface emission and off-site migration of landfill gas will be regularly monitored.  ECS The following compensation planting is recommended as the mitigation measures for the habitat affected due to the SENTX:  • Provision of 6 ha of



EIA Ref.	EM&A Ref	Measures/ Mitigation Measures	asures/ Mitigation the		Who to implement the measure?	im	eası	ment	)	What requirements or standards for the measure to achieve?	Implementation Status and Remarks
		to compensate the loss of shrubland; and  • Provision of a mosaic of grassland and shrubland in the remaining areas of the SENTX Site.  • Compensatory planting and restoration of the SENTX can be implemented progressively according to the filling plan of SENTX.	of nd of		D	C	O/R	A			
9.10.3	EC6	The mixture of grassland, shrubland and woodland habitats are recommended to diversify the habitats for supporting various wildlife in particular butterflies, birds and herpetofauna and blend into the existing undisturbed ecological environment.	To diversify habitats	SENTX Site	SENTX Contractor			<b>✓</b>	•	EIAO-TM Annex 16	Not applicable
9.10.3	EC7	Indigenous plant species of shallow root system, softwood in nature and adaptive to sea shore habitat are recommended to be used	To enhance ecological value of the habitats	SENTX Site	SENTX Contractor			<b>√</b>	<b>✓</b>	EIAO-TM Annex 16	Not applicable



EIA Ref.	EM&A Ref	Measures / Mitigation the Recommended Measure & Main Concerns to address	Who to implement the measure?	When to implement the measure? (a)				What requirements or standards for the measure to achieve?	Implementation Status and Remarks	
					D	С	O/R	Α		
		in the restoration plan, which								
		can establish well in coastal								
		area with exposure to strong								
		wind and salt spray, with								
		sand soil base. Taking								
		consideration of the relative								
		poor substrate and the								
		difficulties of establishment of								
		some native trees in Hong								
		Kong, it is recommended to								
		include approximately 20% of								
		non-native tree species in the								
		compensatory woodland.								
		The non-native tree species								
		can serve as a nurse species								
		to facilitate the establishment								
		of the native tree species,								
		especially the shading, and it								
		can be replaced by								
		established native tree								
		species progressively. Plant								
		species can also make								
		reference to food plants of								
		butterfly species (in								
		particularly butterfly species								
		of conservation interests								



EIA Ref.	EM&A Ref	Measures/ Mitigation Measures	Measures/ Mitigation the Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?	im	eası	ment ture? (1)		What requirements or standards for the measure to achieve?	Implementation Status and Remarks
						D	С	O/R	Α			
		recorded within the CWBCP).										
9.10.3	EC8	It is also recommended that a trial nursery for native plant species be set up to fine tone the planting matrix and management intensity of the recommended indigenous tree species for the restoration of the SENTX. It should be noted that native shrubs and tree species had been used for restoration of the existing SENT Landfill, native plant species that could not successfully be established on the existing SENT Landfill should be reviewed before the preparation of the compensatory planting list. Special care and intensive management of native plant should be implemented in order to ensure proper establishment of the native	To select the most suitable indigenous tree species for the SENTX	SENTX Site	SENTX Contractor				1	EIAO-TM Annex 16	Implemented	



_	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Measures/ Mitigation the the Measure		Who to implement the measure?	im	-	to ment t ure?		What requirements or standards for the measure to achieve?	Implementation Status and Remarks
						D	С	O/R	Α		
		plants.									
9.12.1	EC9	Environmental Monitoring & Audit Requirements  The implementation of the ecological mitigation measures should be checked as part of the environmental monitoring and audit procedures during the construction period.	To ensure that adverse ecological impacts are prevented	SENTX	SENTX Contractor		<b>✓</b>	<b>V</b>	<b>V</b>	EIAO-TM Annex 16	Implemented
<b>Landscape</b> 8 10.6.5	LV1	CM1 - The construction area and area allowed for the contractor's office, leachate treatment plant and laboratory areas will be minimised to a practical minimum, to avoid impacts on adjacent landscape.	To minimise the landscape and visual impacts	SENTX Site	SENTX Contractor		<b>✓</b>			EIAO-TM Annex 18 and ETWBC 3/2006	Implemented
10.6.5	LV2	CM2 - Topsoil, where identified, will be stripped and stored for re-use in the construction of the soft	To minimise the landscape and visual impacts	All construction works area	SENTX Contractor		✓			EIAO-TM Annex 18	Not applicable



EIA Ref.	EM&A Ref	Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address		Who to implement the measure?	im	-	to ment ure? ¤		What requirements or standards for the measure to achieve?	Implementation Status and Remarks
						D	С	O/R	Α		
10.6.5		landscape works, where practical. The Contract Specification will include storage and reuse of topsoil as appropriate.		Potential							
10.6.5	LV3	CM3 - All existing trees at the edges of the landfill will be carefully protected during construction. Detailed Tree Protection Specification will be provided in the Contract Specification. Under this Specification, the Contractor will be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas.	landscape and visual impacts	Potential impacted area	SENTX Contractor					EIAO-TM Annex 18 and ETWBC 3/2006	Implemented
10.6.5	LV4	CM4 - Trees unavoidably affected by the works will be transplanted, where	To minimise the landscape and visual impacts	Potential impacted area	SENTX Contractor	<b>*</b>	<b>✓</b>			EIAO-TM Annex 18 and ETWBC 3/2006	Implemented



EIA Ref.	EM&A Ref	Measures/ Mitigation Measures	Measures Mitigation the Recommer Measure & Main Conc	the Recommended the Measures imple		im	-	to ment ure? a		What requirements or standards for the measure to achieve?	Implementation Status and Remarks
						D	С	O/R	Α		
	detailed Tree Transplar Specification will be pr in the Contract Specific if applicable. Sufficient for necessary tree root crown preparation peri will be allowed in the programme.	necessary and practical. A detailed Tree Transplanting Specification will be provided in the Contract Specification, if applicable. Sufficient time for necessary tree root and crown preparation periods will be allowed in the project programme.	ded ion, me ad								
10.6.5 and SENTX latest design	LV5	CM5 - Within 3 months of taking possession of the SENTX Site, the Contractor will plant advance screen planting of native species at Light Standard size at 1.5m centres along the High Junk Peak Trail so as to screen views of the Works from the trail. Tree planting locations will be agreed with AFCD. Works will be completed within 9 months of taking possession of the SENTX Site.	To minimise the landscape and visual impacts	At High Junk Peak Hiking Trail	SENTX Contractor		<b>V</b>			EIAO-TM Annex 18	Implemented



	EM&A Ref	Measures/ Mitigation 1 Measures	leasures/ Mitigation the leasures Rec Mea Mai		Location of the Measures	Who to implement the measure?	im	eası	ment t ure? ®		What requirements or standards for the measure to achieve?	Implementation Status and Remarks
						D	С	O/R	Α			
10.6.5	LV6		1	area	SENTX Contractor	•	<b>✓</b>			18	Implemented	
10.6.5	LV7	CM7 - The Contractor's office, leachate treatment plant and laboratory will be surrounded by a minimum of 5m wide and 0.75m high earth bund on the west and south sides planted with a dense screen of tree and shrub vegetation. Additional tree planting will be provided in unused spaces with thin infrastructure site, along access roads and in and around car parks. This will be supplemented with shrub planting, where appropriate.	To minimise the landscape and visual impacts	Infrastructure area	SENTX Contractor	•				EIAO-TM Annex 18 and ETWBC 7/2002	Not applicable	



EIA Ref.	EM&A Ref	Measures/ Mitigation Measures		the Measures	Who to implement the measure?	im		to ment t ure? <sup>(1)</sup>		What requirements or standards for the measure to achieve?	Implementation Status and Remarks
10.6.5	LV8	CM8 - Planting trials will be carried out in an on-site nursery prior to	To minimise the landscape and visual impacts	SENTX Site	SENTX Contractor	D	C	O/R	A	EIAO-TM Annex 18	Implemented
		implementation of the first phase of restoration to establish the best planting matrix and management intensity of the recommended plant materials for the restoration.									
11.4.1 and SENTX latest design	LV9	During the preparation of the detailed landscape design plan, the design submission will be audited against the recommendation proposed in the <i>ER Report</i> by the Registered Landscape Architect from the ET.	To ensure the implementation of mitigation measures proposed in this EIA Report	SENTX Site	SENTX Contractor/ET	<b>~</b>	~			EIAO-TM Annex 18	Implemented
Landscape ar	nd Visual	- Operation/Restoration P	hase								
10.6.5 and SENTX latest design	LV10	OM1 - Landfill materials will be covered with general fill material or tarpaulin sheet on a daily basis to reduce visual impact.	To minimise the landscape and visual impacts	Tipping area	SENTX Contractor			<b>✓</b>		EIAO-TM Annex 18	Implemented



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10.6.5 and SENTX latest design	LV11	OM2 - Filling and restoration will be phased during the course of operations in a minimum of 4 phases, the restoration of each phase to commence immediately on the completion of filling in that phase.	To minimise the landscape and visual impacts	Tipping area	SENTX Contractor			√ ·		EIAO-TM Annex 18	Implemented
10.6.5	LV12	OM3 - Catch fences will be erected at the perimeter of the waste boundary, to ensure that all waste stays within the site and is not blown into surrounding areas.	To minimise the landscape and visual impacts	Tipping area	SENTX Contractor			✓		EIAO-TM Annex 18	Implemented
10.6.5	LV13	OM4 - All night-time lighting will be reduced to a practical minimum both in terms of number of units and lux level and will be hooded and directional.	To minimise the landscape and visual impacts	Tipping area	SENTX Contractor			<b>~</b>		EIAO-TM Annex 18	Implemented
11.4.2 and SENTX latest design	LV14	The condition of the restoration plantation will be audited at monthly intervals by a Registered	To check the restoration plantation	SENTX Site	SENTX Contractor/ET			✓		EIAO-TM Annex 18	Not applicable



EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?	When to implement the measure? (1)				What requirements or standards for the measure to achieve?	Implementation Status and Remarks
						D	С	O/R	Α		
		Landscape Architect from the ET.									

