

Appendix 3L Modelling Parameters of Odour Sources within Assessment Area

Scenarios	Source	Source ID	Type	X	Y	X-dir	Y-dir	Rotation Angle	Base Elevation	Release Height	Internal Diameter	Exit Temperature	Exit Velocity	Emission Rate of Ammonia	Measured Emission Rate (OU/s)	Measured Emission Rate (OU/m2s)	Emission Rate x Conversion Factor (OU/s) or (OU/m2s)		Operation Time	
				(m)	(m)	(m)	(m)	(deg)	(mPD)	(mAG)	(m)	(K)	(m/s)	(g/s)			Stability Class A-D	Stability Class E-F		
<b>IPARK2</b>																				
Fixed Source for all Scenarios	Flue of incineration process	IPARK2	POINT	810001	831229	-	-	-	11.5	70	6.86	413	7.865 [1]	6.875 [2]	-	-	-	-	24hr	
	Exhaust 1 from Tipping Hall [3]	OU 1	POINTHOR	809831	831410.8	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 2	POINTHOR	809831.9	831411.1	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 3	POINTHOR	809832.9	831411.5	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 4	POINTHOR	809833.8	831411.8	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 5	POINTHOR	809834.7	831412.2	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 6	POINTHOR	809835.7	831412.5	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 7	POINTHOR	809836.6	831412.9	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 8	POINTHOR	809837.5	831413.2	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 9	POINTHOR	809838.5	831413.6	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 10	POINTHOR	809839.4	831413.9	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
	Exhaust 2 from Tipping Hall [3]	OU 11	POINTHOR	809888	831432	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 12	POINTHOR	809888.9	831432.4	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 13	POINTHOR	809889.8	831432.7	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 14	POINTHOR	809890.8	831433.1	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 15	POINTHOR	809891.7	831433.4	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 16	POINTHOR	809892.6	831433.8	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 17	POINTHOR	809893.6	831434.1	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 18	POINTHOR	809894.5	831434.5	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 19	POINTHOR	809895.4	831434.8	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 20	POINTHOR	809896.4	831435.2	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
	Exhaust 3 from Tipping Hall [3]	OU 21	POINTHOR	809944.9	831453.3	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 22	POINTHOR	809945.9	831453.6	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 23	POINTHOR	809946.8	831454	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 24	POINTHOR	809947.7	831454.3	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 25	POINTHOR	809948.7	831454.7	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 26	POINTHOR	809949.6	831455	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 27	POINTHOR	809950.5	831455.4	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 28	POINTHOR	809951.5	831455.7	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 29	POINTHOR	809952.4	831456.1	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
	OU 30	POINTHOR	809953.3	831456.4	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr		
	Exhaust 4 from Tipping Hall [3]	OU 31	POINTHOR	810001.9	831474.5	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 32	POINTHOR	810002.8	831474.9	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 33	POINTHOR	810003.7	831475.2	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 34	POINTHOR	810004.7	831475.6	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 35	POINTHOR	810005.6	831475.9	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 36	POINTHOR	810006.5	831476.3	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 37	POINTHOR	810007.5	831476.6	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 38	POINTHOR	810008.4	831477	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
		OU 39	POINTHOR	810009.4	831477.3	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr	
OU 40		POINTHOR	810010.3	831477.7	-	-	-	11.5	17	1.1284	0	40.000	-	22.99266	-	-	52.88	24hr		
<b>Existing WENT Landfill [4]</b>																				
Fixed Source for all Scenarios	Raw Leachate Storage Tank at Existing WENT Leachate Treatment Plant	RLL01	AREACIRC	810640	831044	266	-	-	7.00	6.5	-	-	-	-	-	4.488	11.220	10.322	24hr	
		RLL02	AREACIRC	810662	831049	272	-	-	7.26	6.5	-	-	-	-	-	4.488	11.220	10.322	24hr	
	Stripped Leachate Storage Tank at Existing WENT Leachate Treatment Plant	SLLO1	AREACIRC	810643	831025	265	-	-	6.77	6.5	-	-	-	-	-	1.040	2.600	2.392	24hr	
	Treated Leachate Storage Tank at Existing WENT Leachate Treatment Plant	TLL01	AREACIRC	810665	831030	268	-	-	7.29	6.5	-	-	-	-	-	0.122	0.305	0.281	24hr	
	SBR during Aeration at Existing WENT Landfill - SBR A and SBR B	SBRA	AREA	810800	831471	3071	190	-	11.71	0	-	-	-	-	-	0.044	0.110	0.101	24hr	
		SBRB	AREA	810780	831371	3011	190	-	9.74	0	-	-	-	-	-	0.044	0.110	0.101	24hr	
	Sludge Storage Tank at Existing WENT Leachate Treatment Plant	SST01	AREACIRC	810654	831014	16	-	-	5.50	5.85	-	-	-	-	-	0.690	1.725	1.587	24hr	
		SST02	AREACIRC	810657	831019	16	-	-	5.89	5.85	-	-	-	-	-	0.690	1.725	1.587	24hr	
	Stripped Leachate Storage Lagoon within Existing WENT Waste Treated Leachate Storage Lagoon within Existing WENT Waste	SLL15	AREA	810867	831463	1241	187	-	16.01	0	-	-	-	-	-	1.040	2.600	2.392	24hr	
		TLL16	AREA	810875	831515	1509	187	-	17.84	0	-	-	-	-	-	0.122	0.305	0.282	24hr	
	<b>T-PARK [4]</b>																			
	Fixed Source for all Scenarios	Emission Point No. A3 in SP Licence	STF01	POINT	810304	831500	-	-	-	6	29.952	1.5	306	19.24	-	4080	-	-	9.384.000	24hr
Emission Point No. A4 in SP Licence		STF02	POINT	810304	831495	-	-	-	6	29.375	1.5	306	19.24	-	4080	-	-	9.384.000	24hr	
Emission Point No. B3 in SP Licence		STF03	POINT	810506	831500	-	-	-	6	28.875	1.5	306	19.24	-	4080	-	-	9.384.000	24hr	
Emission Point No. B3 in SP Licence		STF04	POINT	810506	831495	-	-	-	6	29.125	1.5	306	19.24	-	4080	-	-	9.384.000	24hr	
Emission Point No. C1 in SP Licence		STF05	POINT	810520	831434	-	-	-	6	14.8	0.6	299	11.544	-	715	-	-	1.645.000	24hr	

Notes:

[1] The exit velocity of 7.865 m/s for the I-Park 2 is for modelling assessment which is not the physical exit velocity as explained in Footnote [10] of Appendix 3D.

[2] In the assessment, the conversion factors of 0.0888 were adopted for converting 1-hour averaged NH3 concentrations to 5-second averaged odour unit, referring to Table 3.9 of Chapter 3.

[3] The calculation of odour emission rate of the tipping hall can be referred to **Appendix 3D**.

[4] Reference was made to the approved "Final Odour Impact Assessment Report for WENTX of Provision of Consultancy Services for Odour Impact Assessment at North East New Territories and West New Territories Landfill" and the latest information at the time of the I-PARK2 EIA.

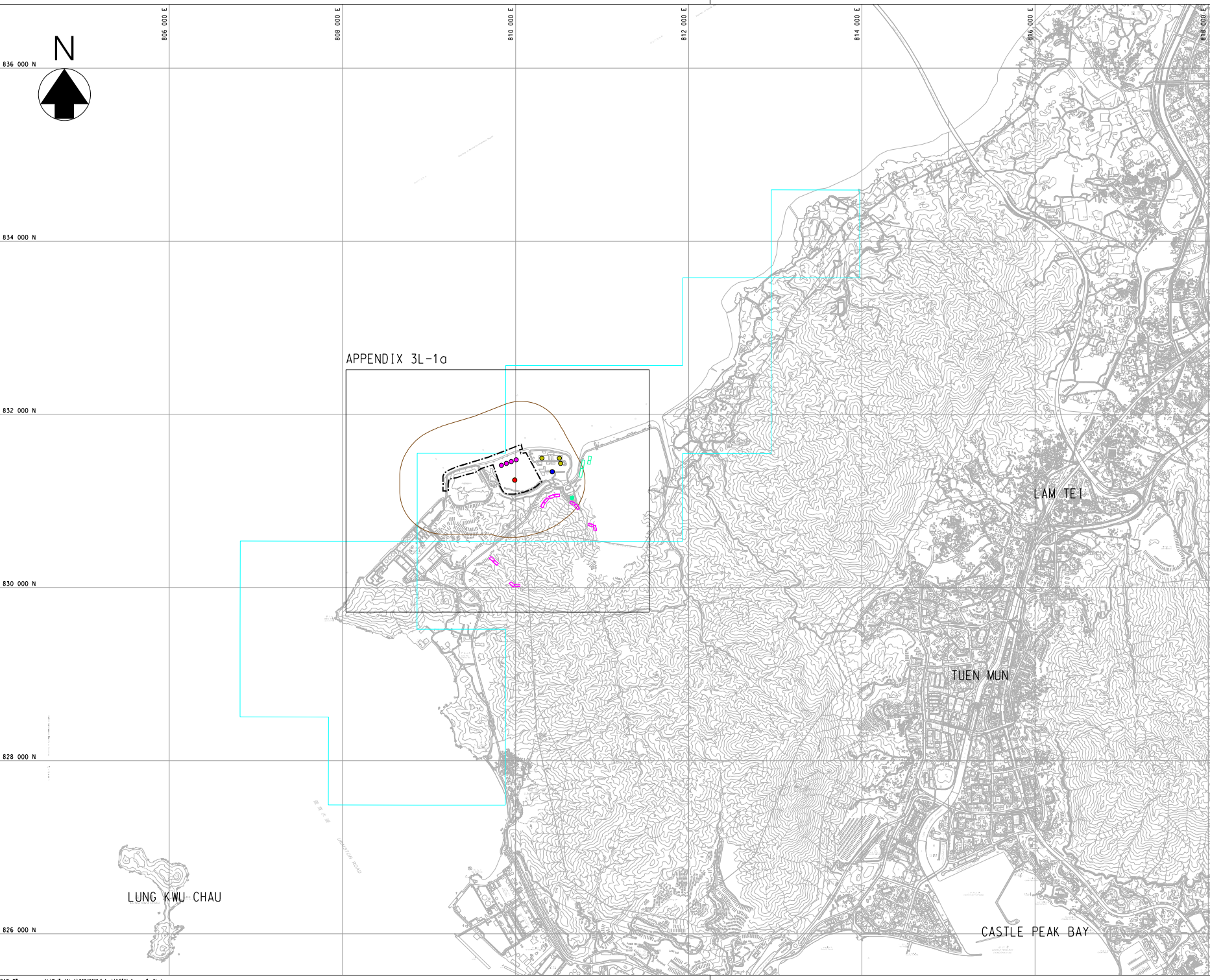
Appendix 3L Modelling Parameters of Odour Sources within Assessment Area

Scenarios	Source	Source ID	Type	X (m)	Y (m)	X-dim (m)	Y-dim (m)	Rotation Angle (deg)	For all receivers except T-PARK		For T-PARK Receivers (TPO1, TPO2) [2]		Internal Diameter (m)	Exit Temperature (K)	Exit Velocity (m/s)	Measured Emission Rate (OU/s)	Measured Emission Rate (OU/m2s)	Emission Rate x Correction Factor (OU/s) or (OU/m2s)		Operation Time	
									Base Elevation (mPD)	Release Height (mAG)	Base Elevation (mPD)	Release Height (mAG)						Stability Class A-D	Stability Class E-F		
<b>WENT Landfill Extension [1]</b>																					
<b>Scenario 1</b>	Active Tipping Area (without daily cover) 1	GW101	AREA	810925	830718	60	3	80	50	0	50	0	-	-	-	-	1.577	3.943	3.627	8am - 8pm	
	Manoeuvring and Compacted Area 1	MC101	AREA	810922	830718	27	60	170	50	0	50	0	-	-	-	-	0.042	0.105	0.097	24hr	
	Active Tipping Area (with daily cover) 1	GW101A	AREA	810925	830718	30	60	170	50	0	50	0	-	-	-	-	0.115	0.288	0.265	8pm - 8am	
	Active Tipping Area (without daily cover) 2	GW102	AREA	810901	830727	60	3	198	50	0	50	0	-	-	-	-	1.577	3.943	3.627	8am - 8pm	
	Manoeuvring and Compacted Area 2	MC102	AREA	810900	830724	60	27	198	50	0	50	0	-	-	-	-	0.042	0.105	0.097	24hr	
	Active Tipping Area (with daily cover) 2	GW102A	AREA	810901	830727	60	30	198	50	0	50	0	-	-	-	-	0.115	0.288	0.265	8pm - 8am	
	Special Trench for animal carcasses (without immediate cover and	SW101	AREA	810925	830718	3	3	170	50	0	50	0	-	-	-	-	8.612	21.530	19.808	8am - 8pm	
	Special Trench for animal carcasses (with immediate cover and daily	SW101A	AREA	810925	830718	3	3	170	50	0	50	0	-	-	-	-	0.255	0.638	0.587	8pm - 8am	
	<b>Scenario 2</b>	Active Tipping Area (without daily cover) 1	GW201	AREA	810705	830964	3	60	146	15	0	45	0	-	-	-	-	1.577	3.943	3.627	8am - 8pm
		Manoeuvring and Compacted Area 1	MC201	AREA	810702	830962	27	60	146	15	0	45	0	-	-	-	-	0.042	0.105	0.097	24hr
Active Tipping Area (with daily cover) 1		GW201A	AREA	810705	830964	30	60	146	15	0	45	0	-	-	-	-	0.115	0.288	0.265	8pm - 8am	
Active Tipping Area (without daily cover) 2		GW202	AREA	810637	831002	3	60	116	15	0	45	0	-	-	-	-	1.577	3.943	3.627	8am - 8pm	
Manoeuvring and Compacted Area 2		MC202	AREA	810636	830999	27	60	116	15	0	45	0	-	-	-	-	0.042	0.105	0.097	24hr	
Active Tipping Area (with daily cover) 2		GW202A	AREA	810637	831002	30	60	116	15	0	45	0	-	-	-	-	0.115	0.288	0.265	8pm - 8am	
Special Trench for animal carcasses (without immediate cover and		SW201	AREA	810705	830964	3	3	146	15	0	45	0	-	-	-	-	8.612	21.530	19.808	8am - 8pm	
Special Trench for animal carcasses (with immediate cover and daily		SW201A	AREA	810705	830964	3	3	146	15	0	45	0	-	-	-	-	0.255	0.638	0.587	8pm - 8am	
<b>Scenario 3</b>		Active Tipping Area (without daily cover) 1	GW301	AREA	810506	831082	60	3	174	25	15	45	0	-	-	-	-	1.577	3.943	3.627	8am - 8pm
		Manoeuvring and Compacted Area 1	MC301	AREA	810506	831079	60	27	174	25	15	45	0	-	-	-	-	0.042	0.105	0.097	24hr
	Active Tipping Area (with daily cover) 1	GW301A	AREA	810506	831082	60	30	174	25	15	45	0	-	-	-	-	0.115	0.288	0.265	8pm - 8am	
	Active Tipping Area (without daily cover) 2	GW302	AREA	810439	831075	60	3	159	25	15	45	0	-	-	-	-	1.577	3.943	3.627	8am - 8pm	
	Manoeuvring and Compacted Area 2	MC302	AREA	810440	831072	60	27	159	25	15	45	0	-	-	-	-	0.042	0.105	0.097	24hr	
	Active Tipping Area (with daily cover) 2	GW302A	AREA	810439	831075	60	30	159	25	15	45	0	-	-	-	-	0.115	0.288	0.265	8pm - 8am	
	Special Trench for animal carcasses (without immediate cover and	SW301	AREA	810464	831078	3	3	174	25	15	45	0	-	-	-	-	8.612	21.530	19.808	8am - 8pm	
	Special Trench for animal carcasses (with immediate cover and daily	SW301A	AREA	810464	831078	3	3	174	25	15	45	0	-	-	-	-	0.255	0.638	0.587	8pm - 8am	
	<b>Scenario 4</b>	Active Tipping Area (without daily cover) 1	GW401	AREA	810361	831040	60	3	134	25	15	45	0	-	-	-	-	1.577	3.943	3.627	8am - 8pm
		Manoeuvring and Compacted Area 1	MC401	AREA	810363	831037	60	27	134	25	15	45	0	-	-	-	-	0.042	0.105	0.097	24hr
Active Tipping Area (with daily cover) 1		GW401A	AREA	810361	831040	60	30	134	25	15	45	0	-	-	-	-	0.115	0.288	0.265	8pm - 8am	
Active Tipping Area (without daily cover) 2		GW402	AREA	810314	830988	60	3	115	25	15	45	0	-	-	-	-	1.577	3.943	3.627	8am - 8pm	
Manoeuvring and Compacted Area 2		MC402	AREA	810317	830987	60	27	115	25	15	45	0	-	-	-	-	0.042	0.105	0.097	24hr	
Active Tipping Area (with daily cover) 2		GW402A	AREA	810314	830988	60	30	115	25	15	45	0	-	-	-	-	0.115	0.288	0.265	8pm - 8am	
Special Trench for animal carcasses (without immediate cover and		SW401	AREA	810319	830997	3	3	46	25	15	45	0	-	-	-	-	8.612	21.530	19.808	8am - 8pm	
Special Trench for animal carcasses (with immediate cover and daily		SW401A	AREA	810319	830997	3	3	46	25	15	45	0	-	-	-	-	0.255	0.638	0.587	8pm - 8am	
<b>Scenario 5</b>		Active Tipping Area (without daily cover) 1	GW501	AREA	809694	830337	60	3	41	100	0	100	0	-	-	-	-	1.577	3.943	3.627	8am - 8pm
		Manoeuvring and Compacted Area 1	MC501	AREA	809697	830337	60	27	41	100	0	100	0	-	-	-	-	0.042	0.105	0.097	24hr
	Active Tipping Area (with daily cover) 1	GW501A	AREA	809694	830337	60	30	41	100	0	100	0	-	-	-	-	0.115	0.288	0.265	8pm - 8am	
	Active Tipping Area (without daily cover) 2	GW502	AREA	809737	830295	60	3	41	100	0	100	0	-	-	-	-	1.577	3.943	3.627	8am - 8pm	
	Manoeuvring and Compacted Area 2	MC502	AREA	809739	830297	60	27	41	100	0	100	0	-	-	-	-	0.042	0.105	0.097	24hr	
	Active Tipping Area (with daily cover) 2	GW502A	AREA	809737	830295	60	30	41	100	0	100	0	-	-	-	-	0.115	0.288	0.265	8pm - 8am	
	Special Trench for animal carcasses (without immediate cover and	SW501	AREA	809694	830337	3	3	41	100	0	100	0	-	-	-	-	8.612	21.530	19.808	8am - 8pm	
	Special Trench for animal carcasses (with immediate cover and daily	SW501A	AREA	809694	830337	3	3	41	100	0	100	0	-	-	-	-	0.255	0.638	0.587	8pm - 8am	
	<b>Scenario 6</b>	Active Tipping Area (without daily cover) 1	GW601	AREA	809970	830005	3	60	313	200	0	200	0	-	-	-	-	1.577	3.943	3.627	8am - 8pm
		Manoeuvring and Compacted Area 1	MC601	AREA	809972	830008	27	60	313	200	0	200	0	-	-	-	-	0.042	0.105	0.097	24hr
Active Tipping Area (with daily cover) 1		GW601A	AREA	809970	830005	30	60	313	200	0	200	0	-	-	-	-	0.115	0.288	0.265	8pm - 8am	
Active Tipping Area (without daily cover) 2		GW602	AREA	809991	830007	60	3	357	200	0	200	0	-	-	-	-	1.577	3.943	3.627	8am - 8pm	
Manoeuvring and Compacted Area 2		MC602	AREA	809991	830010	60	27	357	200	0	200	0	-	-	-	-	0.042	0.105	0.097	24hr	
Active Tipping Area (with daily cover) 2		GW602A	AREA	809991	830007	60	30	357	200	0	200	0	-	-	-	-	0.115	0.288	0.265	8pm - 8am	
Special Trench for animal carcasses (without immediate cover and		SW601	AREA	809970	830005	3	3	313	200	0	200	0	-	-	-	-	8.612	21.530	19.808	8am - 8pm	
Special Trench for animal carcasses (with immediate cover and daily		SW601A	AREA	809970	830005	3	3	313	200	0	200	0	-	-	-	-	0.255	0.638	0.587	8pm - 8am	
<b>Fixed Source for All Scenarios</b>		Deodourising Unit at WENT Landfill Extension	DOU01	POINT	810423	831338	-	-	-	7.79	10.00	7.79	10.00	0.70	298.00	15.00	42.653	-	98.102	98.102	24hr

Notes:

[1] Reference was made to the approved "Final Odour Impact Assessment Report for WENTX of Provision of Consultancy Services for Odour Impact Assessment at North East New Territories and West New Territories Landfill" and the latest information at the time of the I-PARK2 EIA.

[2] Another set of base elevation and release height for the emission sources in Scenarios 2, 3 and 4 was used in assessing T-PARK receivers to account for variation of the fill height of the landfill.



- LEGEND:**
- PROJECT BOUNDARY
  - AREA OF INFLUENCE (AOIS)
  - 500m BOUNDARY
- POTENTIAL ODOUR SOURCES IN TPARK 2**
- FLUE OF INCINERATION PROCESS
  - ODOUR EMISSION FROM TIPPING HALL
- POTENTIAL CONCURRENT ODOUR SOURCE**
- TIPPING AREA IN WENTX WITH LANDFILL CELL
  - LAGOONS IN EXISTING WENT
  - WENTX LEACHATE TREATMENT PLANT DEODOURISERS
  - T.PARK DEODOURISERS

Revision	Date	Description			Initial	
		Designed	Checked	Drawn	Checked	Checked
Initial	LYS	SFL	SZ	SFL		
Date	10/23	10/23	10/23	10/23	10/23	

Approved

Contract no. CE 26/2022 (EP)

Contract title  
DEVELOPMENT OF INTEGRATED WASTE MANAGEMENT FACILITIES PHASE 2 - INVESTIGATION, DESIGN AND CONSTRUCTION

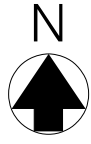
Drawing title  
LOCATION OF POTENTIAL ODOUR EMISSION SOURCES

Drawing no. APPENDIX 3L Revision -

Scale A1 1:15000 A3 1:30000







Revision	Date	Description			Initial	
		Designed	Checked	Drawn	Checked	Checked
Initial		LYS	SFL	SZ	SFL	
Date	10/23	10/23	10/23	10/23	10/23	

Approved

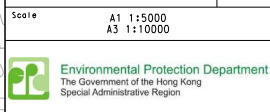
Contract no. CE 26/2022 (EP)

Contract title  
DEVELOPMENT OF INTEGRATED WASTE MANAGEMENT FACILITIES PHASE 2 - INVESTIGATION, DESIGN AND CONSTRUCTION

Drawing title  
LOCATION OF POTENTIAL ODOUR EMISSION SOURCES

Drawing no. APPENDIX 3L1a

Scale  
A1 1:5000  
A3 1:10000



Plot Date: 2024.02.28

CAD Filename: Y:\Daily Work\20240916d\dpn\ACBA\_Appendix\_3L1a.dgn