Contract No. EP/SP/66/ Integrated Waste Manag	12 gement Facilities, Phase 1	Keppel Seghers – Zhen Hua Joint Venture
Appendix H	Waste Flow Table	





### **Monthly Summary Waste Flow Table for** 2018 (year)

Project : In	Project : Integrated Waste Management Facilities, Phase 1										Contract No.: EP/SP/66/12						
		Actual (	Quantities of	Inert C&D	Materials Ger	nerated Mon	thly			Actual	Quantities of	C&D Wastes	Generated M	onthly			
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete (see Note 1)	Reused in the Contract	Reused in other Projects	Disposed as Public Fill (see Note 4)	4)	Fill Public fill (see Note 4)	,	Metals (see Note 5)	Paper/ cardboard packaging (see Note 5)	Plastics (see Note 2, 5)	Chemica	l Waste	Others, e.g. general refuse (see Note 3)			
	(in ,000m <sup>3</sup> )	(in ,000m <sup>3</sup> )	(in ,000m <sup>3</sup> )	(in ,000m <sup>3</sup>	(in ,000m <sup>3</sup> )	(	in ,000m <sup>3</sup> )	T	(in ,000 kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000L)	(in ,000 m <sup>3</sup> )			
Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Sub-total	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0065			
Sep	0	0	0	0	0	2.9619	0	0	0	0	0	0	0	0			
Oct	0	0	0	0	0	3.0771	0	0	0	0	0	0	0	0.0130			
Nov	0	0	0	0	0	6.7871	0	0	0	0	0	0	0	0			
Dec	0	0	0	0	0	59.0709	0	0	0	0	0	0.2000	0.8700	0			
Total	0	0	0	0	0	71.8970	0	0	0	0	0	0.2000	0.8700	0.0195			

- Broken concrete for recycling into aggregates. (1)
- Plastics refer to plastic bottles/ containers, plastic sheets/ foam from packaging materials.
- Use the conversion factor: 1 full load of dumping truck being equivalent to 6.5m<sup>3</sup> by volume.
- Use the conversion factor: sand density =  $1.6T/m^3$ , public fill density =  $1.8T/m^3$  and rock density =  $2T/m^3$
- Materials recycled.





Contract No.: EP/SP/66/12

# Monthly Summary Waste Flow Table for 2019 (year)

Project: Integrated Waste Management Facilities, Phase 1

1 Toject . II	oject i integrated waste management i actitues, i hase i										Contract 140 E1/51/00/12						
		Actual	Quantities of	f Inert C&D	Materials Ger	nerated Mor	nthly		Actual Quantities of C&D Wastes Generated Monthly								
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete (see Note 1)	Reused in the Contract	Reused in other Projects	Disposed as Public Fill (see Note 4)	Imported Fill Sand (see Note 4)	Imported Fill Public fill (see Note 4)	Imported Fill Rock (see Note 4)	Metals (see Note 5)	Paper/ cardboard packaging (see Note 5)	Plastics (see Note 2, 5)	Chemica	l Waste	Others, e.g. general refuse (see Note 3)			
	(in ,000m <sup>3</sup> )	(in ,000m <sup>3</sup> )	(in ,000m <sup>3</sup> )	(in ,000m <sup>3</sup>	(in ,000m <sup>3</sup> )	(	in ,000m <sup>3</sup> )	I	(in ,000 kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000L)	(in ,000 m <sup>3</sup> )			
Jan	0	0	0	0	0	82.6139	0	0	0	0	0	0	0	0.0065			
Feb	0	0	0	0	0	46.7821	0	0	0	0	0	0	0	0			
Mar	0	0	0	0	0	97.1000	0	0.7552	0	0.2560	0	0	0	0			
Apr	0	0	0	0	0	58.0413	0	0	0	0	0	0	0	0			
May	0	0	0	0	0	14.5625	0	1.4648	0	0	0	0	0	0.0065			
Jun	0	0	0	0	0	0	0	6.8421	0	0	0	0	0	0			
Sub-total	0	0	0	0	0	299.0998	0	9.0621	0	0.2560	0	0	0	0.0130			
Jul	0	0	0	0	0	0	0	0.4289	0	0	0	0	8.4000	0.0130			
Aug	0	0	0	0	0	2.5775	0	10.5600	0	0	0	0	0	0			
Sep	0	0	0	0	0	6.1081	0	8.4704	0	0.3530	0	0	0	0.0065			
Oct	0	0	0	0	0	9.8875	0	7.1900	0	0	0	0	0	0			
Nov	0	0	0	0	0	38.3088	0	19.3105	0	0	0	0	0	0.0195			
Dec	0	0	0	0	0	54.3469	0	26.9807	0	0	0	0	0	0.0910			
Total	0	0	0	0	0	410.3286	0	82.0026	0	0.6090	0	0	8.4000	0.1430			

- (1) Broken concrete for recycling into aggregates.
- (2) Plastics refer to plastic bottles/ containers, plastic sheets/ foam from packaging materials.
- (3) Use the conversion factor: 1 full load of dumping truck being equivalent to 6.5m<sup>3</sup> by volume.
- Use the conversion factor: sand density =  $1.6T/m^3$ , public fill density =  $1.8T/m^3$  and rock density =  $2T/m^3$
- (5) Materials recycled.





#### **Monthly Summary Waste Flow Table for** 2020 (year)

Project : In	ntegrated W	aste Manag	gement Faci	lities, Phas	e 1			Contract No.: EP/SP/66/12								
		Actual	Quantities of	Inert C&D	Materials Ger	nerated Mon	thly		Actual Quantities of C&D Wastes Generated Monthly							
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete (see Note 1)	Reused in the Contract	Reused in other Projects	Disposed as Public Fill (see Note 4)	Imported Fill Sand (see Note 4)	Imported Fill Public fill (see Note 4)	Imported Fill Rock (see Note 4)	Metals (see Note 5)	Paper/ cardboard packaging (see Note 5)	Plastics (see Note 2, 5)	Chemica	l Waste	Others, e.g. general refuse (see Note 3)		
	(in ,000m <sup>3</sup> )	(in ,000m <sup>3</sup> )	(in ,000m <sup>3</sup> )	(in ,000m <sup>3</sup>	(in ,000m <sup>3</sup> )	(	in ,000m <sup>3</sup> )	Т	(in ,000 kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000L)	$(in ,000 m^3)$		
Jan	0	0	0	0	0	37.1550	0	25.0812	0	0	0	0	0	0.0065		
Feb	0	0	0	0	0	27.7910	0	18.8300	0	0	0	0	0	0.0065		
Mar	0	0	0	0	0	22.5669	0	26.1586	0	0	0	0	7.2000	0.0065		
Apr	0	0	0	0	0	12.7800	0	10.1825	0	0	0	0	0	0.0195		
May	0	0	0	0	0	16.1138	0	24.3740	0	0.4220	0	0	0	0.0195		
Jun	0	0	0	0	0	31.5177	0	28.3030	0	0	0	0	0	0.0065		
Sub-total	0	0	0	0	0	147.9244	0	132.9293	0	0.4220	0	0	7.2000	0.0650		
Jul	0	0	0	0	0	34.7856	17.0606	35.1800	0	0	0	0	0	0.0195		
Aug	0	0	0	0	0	27.1375	65.5667	27.9335	0	0	0	0	0	0		
Sep	0	0	0	0	0	11.9813	110.1328	43.5435	0	0	0	0	0	0.0195		
Oct	0	0	0	0	0	2.8213	131.6600	22.5415	0	0	0	0	0	0.0130		
Nov	0	0	0	0	0	0	162.1811	44.6475	0	0.4090	0	0	0.4000	0.0130		
Dec	0	0	0	0	0	0	174.9800	57.8380	0	0	0	0	0	0.0130		
Total	0	0	0	0	0	224.6501	661.5812	364.6133	0	0.8310	0	0	7.6000	0.1430		

- Broken concrete for recycling into aggregates. (1)
- Plastics refer to plastic bottles/ containers, plastic sheets/ foam from packaging materials. (2)
- Use the conversion factor: 1 full load of dumping truck being equivalent to 6.5m<sup>3</sup> by volume.
- Use the conversion factor: sand density =  $1.6T/m^3$ , public fill density =  $1.8T/m^3$  and rock density =  $2T/m^3$
- Materials recycled.





# Monthly Summary Waste Flow Table for 2021 (year)

Project: Integrated Waste Management Facilities, Phase 1 Contract No.: EP/SP/66/12

Project : I	roject: Integrated waste Management Facilities, Phase 1										Contract No.: EP/SP/00/12					
		Actual	Quantities of	of Inert C&D	Materials Ge	enerated Mo	nthly			Actual	Quantities of	C&D Wastes	Generated M	onthly		
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete (see Note 1)	Reused in the Contract	Reused in other Projects	Disposed as Public Fill (see Note 4)	Imported Fill Sand (see Note 4)	Imported Fill Public fill (see Note 4)	Imported Fill Rock (see Note 4)	Metals (see Note 5)	Paper/ cardboard packaging (see Note 5)	Plastics (see Note 2, 5)	Chemica	l Waste	Others, e.g. general refuse (see Note 3)		
	(in ,000m <sup>3</sup> )	(in ,000m <sup>3</sup> )	(in ,000m <sup>3</sup> )	(in ,000m <sup>3</sup>	(in ,000m <sup>3</sup> )		(in ,000m <sup>3</sup> )	T	(in ,000 kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000L)	(in ,000 m <sup>3</sup> )		
Jan	0	0	0	0	0	0	198.1311	36.4775	0	0	0	0	0	0.0065		
Feb	0	0	0	0	0	0	143.9511	20.9960	0	0	0	0	0	0.6305		
Mar	0	0	0	0	0	0	103.1833	23.4510	0	0	0	0	0	0.0130		
Apr	0	0	0	0	0	0	161.2956	27.2810	0	0	0	0	0	0.0130		
May	0	0	0	0	0	0	193.3300	20.5265	0	0	0	0	0	0.0715		
Jun	0	0	0	0	0	0	141.5728	23.7825	0	0.2440	0	0	0	0.0455		
Sub-total	0	0	0	0	0	0	941.4639	152.5145	0	0.2440	0	0	0	0.7800		
Jul	0	0	0	0	0	0	105.1083	30.6065	0	0	0	0	0	0.0195		
Aug	0	0	0	0	0	0	11.1822	7.5180	0	0	0	0	0	0.0130		
Sep	0	0	0	0	0	0	0	5.7575	0	0	0	0	0.6000	0.0390		
Oct	0	0	0	0	0	0	0	6.8885	0	0	0	0	0	0		
Nov	0	0	0	0	0	0	0	6.2975	0	0.1610	0	0	0	0.0130		
Dec	0	0	0	0	0	0	0	5.9235	0	0	0	0	0	0		
Total	0	0	0	0	0	0	1057.7544	215.5060	0	0.4050	0	0	0.6000	0.8645		

- (1) Broken concrete for recycling into aggregates.
- (2) Plastics refer to plastic bottles/ containers, plastic sheets/ foam from packaging materials.
- (3) Use the conversion factor: 1 full load of dumping truck being equivalent to 6.5m<sup>3</sup> by volume.
- Use the conversion factor: sand density =  $1.6T/m^3$ , public fill density =  $1.8T/m^3$  and rock density =  $2T/m^3$ .
- (5) Materials recycled.





### **Monthly Summary Waste Flow Table for** 2022 (year)

Project: Integrated Waste Management Facilities, Phase 1 Contract No.: EP/SP/66/12

I Toject . II	Toject i integrated waste Management Pacifities, Phase 1										CONTRACT NO. EF/SF/00/12					
		Actual	Quantities of	of Inert C&D	Materials Go	enerated Mo	nthly		Actual Quantities of C&D Wastes Generated Monthly							
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete (see Note 1)	Reused in the Contract	Reused in other Projects (see Note 4)	Disposed as Public Fill (see Note 4)	Imported Fill Sand (see Note 4)	Imported Fill Public fill (see Note 4)	Imported Fill Rock (see Note 4)	Metals (see Note 5)	Paper/ cardboard packaging (see Note 5)	Plastics (see Note 2, 5)	Chemica	l Waste	Others, e.g. general refuse (see Note 3)		
	(in ,000m <sup>3</sup> )	(in ,000m <sup>3</sup> )	(in ,000m <sup>3</sup> )	(in ,000m <sup>3</sup>	(in ,000m <sup>3</sup> )		$(in,000m^3)$	1	(in ,000 kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000L)	(in ,000 m <sup>3</sup> )		
Jan	0	0	0	0	0	0	4.9389	2.7070	0	0.1550	0	0	0	0.0715		
Feb	0	0	0	0	0	0	3.2478	4.0290	0	0	0	0.4000	0.2250	0		
Mar	0	0	0	0	0	0	2.3422	2.7820	0	0	0	0	0	0.0780		
Apr	0	0	0	0	0	0	18.2189	5.8100	0	0.3120	0	0	0	0.1495		
May	0.0648	0	0	0	0.0648	0	16.7711	17.2320	0	0	0	0	0	0.0975		
Jun	0.0037	0	0	0	0.0037	0.2115	1.1128	14.1470	36.3000	0.3890	0	0	1.7250	0.0975		
Sub-total	0.0685	0	0	0	0.0685	0.2115	46.6317	46.7070	36.3000	0.8560	0	0.4000	1.9500	0.4940		
Jul	25.7183	0	0	25.7183	0	0.1125	0.8333	17.5210	0	0.6400	0.0060	0	0	0.1235		
Aug	13.2494	0	0	13.2494	0	0	0	24.5210	76.0300	1.8870	0	0	0	0.1170		
Sep	24.9072	0	0	24.8494	0.0578	0	0	16.2815	72.0600	0.3060	0	0	0	0.1885		
Oct	13.3139	0	0	13.3006	0.0133	0	0	11.8665	78.1000	0.5800	0	0	0	0.2405		
Nov	26.5583	0	0	26.5583	0	0	0	7.2055	0	0	0	0	0	0.1105		
Dec	29.1411	0	0	29.1411	0	0	0	3.5174	0	0	0	0	0	0.2535		
Total	132.9567	0	0	132.8171	0.1396	0.3240	47.4650	127.6199	262.4900	4.2690	0.0060	0.4000	1.9500	1.5275		

- Broken concrete for recycling into aggregates. (1)
- Plastics refer to plastic bottles/ containers, plastic sheets/ foam from packaging materials. (2)
- Use the conversion factor: 1 full load of dumping truck being equivalent to  $6.5 \,\mathrm{m}^3$  by volume. Use the conversion factor: sand density =  $1.6 \,\mathrm{T/m}^3$ , public fill density =  $1.8 \,\mathrm{T/m}^3$  and rock density =  $2 \,\mathrm{T/m}^3$ .
- (5) Materials recycled.





### **Monthly Summary Waste Flow Table for** 2023 (year)

Project : In	ntegrated W	aste Manag	gement Faci	lities, Phas	e 1			Contract No.: EP/SP/66/12						
		Actual	Quantities o	of Inert C&D	Materials G	enerated Mo	nthly			Actual	Quantities of	C&D Wastes	Generated M	onthly
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete (see Note 1)	Reused in the Contract	Reused in other Projects (see Note 4)	Disposed as Public Fill (see Note 4)	Imported Fill Sand (see Note 4)	Imported Fill Public fill (see Note 4)	Imported Fill Rock (see Note 4)	Metals (see Note 5)	Paper/ cardboard packaging (see Note 5)	Plastics (see Note 2, 5)	Chemica	l Waste	Others, e.g. general refuse (see Note 3)
	(in ,000m <sup>3</sup> )	$(in ,000m^3)$	(in ,000m <sup>3</sup> )	(in ,000m <sup>3</sup>	(in ,000m <sup>3</sup> )		(in ,000m <sup>3</sup> )	Т	(in ,000 kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000L)	(in ,000 m <sup>3</sup> )
Jan	24.6728	0	0	24.6728	0	0	0	1.3545	0	0.3150	0	0	0	0.1365
Feb	26.7206	0	0	26.7206	0	0	0	1.8990	11.1501	0	0.0007	0	0	0.1235
Mar	22.1089	0	0	22.1089	0	0	0	0.9025	0	0	0	0	0	0.1105
Apr	36.0011	0	0	36.0011	0	0	0	0	0	0.2150	0	0	0	0.1365
May	21.8900	0	0	21.8900	0	0	0	0	0	0.3160	0	0	0	0.1495
Jun	8.8878	0	0	8.8878	0	0	0	0	0	0	0	0	0	0.1950
Sub-total	140.2812	0	0	140.2812	0	0	0	4.1560	11.1501	0.8460	0.0007	0	0	0.8515
Jul	2.2233	0	0	2.2233	0	0	0	0	0	0.3870	0	0	0	0.1495
Aug	4.4200	0	0	4.4200	0	0	0	0	0	0	0	0	0	0.2015
Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2860
Oct	0	0	0	0	0	0	0	0.4025	0	0.3770	0	0	0	0.2405
Nov	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3510
Dec	0	0	0	0	0	0	0	0.4960	0	0	0	0	0	0.3835
Total	146.9245	0	0	146.9245	0	0	0	5.0545	11.1501	1.6100	0.0007	0	0	2.4635

- Broken concrete for recycling into aggregates. (1)
- Plastics refer to plastic bottles/ containers, plastic sheets/ foam from packaging materials. (2)
- Use the conversion factor: 1 full load of dumping truck being equivalent to 6.5m<sup>3</sup> by volume.
- Use the conversion factor: sand density =  $1.6T/m^3$ , public fill density =  $1.8T/m^3$  and rock density =  $2T/m^3$ .
- Materials recycled. (5)





### **Monthly Summary Waste Flow Table for** 2024 (year)

Project: Integrated Waste Management Facilities, Phase 1 Contract No.: EP/SP/66/12

I Toject . II	Toject : Integrated Waste Wanagement Lacinties, Linase 1										Contract 10 E1/51/00/12					
		Actual	l Quantities o	of Inert C&D	Materials Go	enerated Mo	nthly			Actual	Quantities of	C&D Wastes	Generated M	onthly		
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete (see Note 1)		Reused in other Projects (see Note 4)	Disposed as Public Fill (see Note 4)	Imported Fill Sand (see Note 4)	Imported Fill Public fill (see Note 4)	Imported Fill Rock (see Note 4)	Metals (see Note 5)	Paper/ cardboard packaging (see Note 5)	Plastics (see Note 2, 5)	Chemica	l Waste	Others, e.g. general refuse (see Note 3)		
	(in ,000m <sup>3</sup> )	(in ,000m <sup>3</sup> )	(in ,000m <sup>3</sup> )	(in ,000m <sup>3</sup>	(in ,000m <sup>3</sup> )		(in ,000m <sup>3</sup> )	T	(in ,000 kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000L)	(in ,000 m <sup>3</sup> )		
Jan	0	0	0	0	0	0	0	0	22.8700	0	0	0	0	0.4940		
Feb	1.9433	0	0	1.9433	0	0	0	0	0	0.3190	0	0	0	0.2665		
Mar	4.4367	0	0	4.4367	0	0	0	0	0	0	0	0	0	0.3640		
Apr																
May																
Jun																
Sub-total	6.3800	0	0	6.3800	0	0	0	0	22.8700	0.3190	0	0	0	1.1245		
Jul																
Aug																
Sep																
Oct																
Nov																
Dec																
Total	6.3800	0	0	6.3800	0	0	0	0	22.8700	0.3190	0	0	0	1.1245		

- Broken concrete for recycling into aggregates. (1)
- Plastics refer to plastic bottles/ containers, plastic sheets/ foam from packaging materials. (2)
- (3)
- Use the conversion factor: 1 full load of dumping truck being equivalent to  $6.5 \,\mathrm{m}^3$  by volume. Use the conversion factor: sand density =  $1.6 \,\mathrm{T/m}^3$ , public fill density =  $1.8 \,\mathrm{T/m}^3$  and rock density =  $2 \,\mathrm{T/m}^3$ .
- (5) Materials recycled.