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





Monthly Summary Waste Flow Table for 2018 (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	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)	Fill Sand (see Note 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 ³)	(in ,000m ³)	(in ,000m ³)	(in ,000m ³	(in ,000m ³)	(1	in ,000m ³)	T	(in ,000 kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000L)	(in ,000 m ³)
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 6.5m³ 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	Toject : Integrated Waste Management Lacinties, Linase L										Contract 10 E1/51/00/12						
		Actual	Quantities of	f Inert C&D	Materials Ger	Actual Quantities of C&D Wastes Generated Monthly											
Month	Total Quantity Generated	Quantity Broken Concrete		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)	Chemical Waste		Others, e.g. general refuse (see Note 3)			
	(in ,000m ³)	(in ,000m ³)	(in ,000m ³)	(in ,000m ³	(in ,000m ³)	(in ,000m ³)	I	(in ,000 kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000L)	(in ,000 m ³)			
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 6.5m³ 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 ³)	(in ,000m ³)	(in ,000m ³)	(in ,000m ³	(in ,000m ³)	(in ,000m ³)	Т	(in ,000 kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000L)	$(in,000 \text{ m}^3)$		
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 6.5m³ 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	Toject: Integrated waste Management Facilities, Phase 1										Contract No.: EP/SP/00/12					
		Actual	Quantities of	of Inert C&D	Materials Ge	enerated Mo	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 ³)	(in ,000m ³)	(in ,000m ³)	(in ,000m ³	(in ,000m ³)		(in ,000m ³)	T	(in ,000 kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000L)	(in ,000 m ³)		
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 6.5m³ 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	rioject i integrated waste Management Facilities, Fliase 1										Contract No.: Er/Sr/00/12						
		Actual	Quantities of	of Inert C&D	Materials Go	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 ³)	(in ,000m ³)	(in ,000m ³)	(in ,000m ³	(in ,000m ³)		$(in,000m^3)$	1	(in ,000 kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000L)	(in ,000 m ³)			
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.