## **Attachment 1**

Extract of Revised Sewerage Impact

**Assessment** 

within the proposed composite development. The wastewater generated will be contributed by the residents and employees.

**Table: Sewage Flow Estimate** 

	No. of	Unit Flow	Estimated	Catchment	Flow	Contributing	Peaking	Peak
	persons	Factor	Dry	Inflow	Rate	Population <sup>[2]</sup>	Factor <sup>[3]</sup>	Flow
		(m³/person/	Weather	Factor <sup>[1]</sup>	(m³/day)			(L/s)
		day)	Flow					
Shop	3	0.28 [4]	0.84	1.1	301.7	1,117.42	6	23.05
Employees								
RCHE and/or	380	0.19 [5]	72.2					
RCHD								
Residents								
RCHE	60	0.28 [6]	16.8					
and/or								
RCHD								
employees								
Residents	683	0.27 [7]	184.44					
on 7/F to								
26/F								

## Remarks:

- [1] Catchment Inflow Factor=1.1 (Kwai Chung) is based on EPD's GESF Table T-4.
- [2] It is based on the equation from GESF: Contributing Population =  $\frac{Calculated\ total\ average\ flow}{0.27}$
- [3] Peaking Factor=6 for population 1,000-5,000 (including stormwater allowance) as per EPD's GESF Table T-5
- [4] Unit flow factor = 0.28 (Commercial Employee + J4) is based on EPD's GESF Table T-2
- [5] Unit flow factor = 0.19 (Institutional and special class) is based on EPD's GESF Table T-1
- [6] Unit flow factor = 0.28 (Commercial Employee + J11) is based on EPD's GESF Table T-2
- [7] Unit flow factor = 0.27 (Private R2) is based on EPD's GESF Table T-1

## 5. Overall Sewer Capacity

The estimated cumulative peak discharge of all downstream sewerage generated from the proposed development with the concerned catchments account for no more than 35% of the hydraulic capacity of the concerned sewer (from manholes FMH4020964 to FMH4020951). No exceedance of hydraulic capacity for all cumulative peak discharge is anticipated. Detailed calculations of sewage generation and hydraulic capacity are provided in **Appendix 1**. All existing sewers have sufficient capacity and no upgrading is required to serve the proposed composite development.

**Table 1 Calculation for Sewage Generation Rate of the Proposed Development** 

1. Park Sun Redevelopment on G/F Shop			
Total GFA	131 m <sup>2</sup>		
Worker Density	2.1 worker/100m <sup>2</sup> - from CIFSUS (Table 8) - Worker Density (Retail Trade - Private Commercials)		
Estimated Population	3		
Unit Flow Factor	0.28 m <sup>3</sup> /day/person - from GESF(Table T-2) - UFF for Commercial Flow and Student Flows (Commercial Employee and J4 Wholesale & Retail)		
Estimated Dry Weather Flow	$0.84 \text{ m}^3/\text{day}$		
2. Park Sun Redevelopment on 1/F - 3/F RCHD a	and 4/F - 6/F RCHE		
Nos. of Beds	380 the upper-end provison in the proposal		
Nos. of Staff	60 As advised by the Applicant		
Unit Flow Factor for the Residents	$0.19 \frac{\text{m3/day/person}}{\text{and special class}} \cdot \text{from GESF(Table T-1)} - \text{UFF for Domestic Flows (Institutional and special class)}$		
Unit Flow Factor for staff	0.28 m3/day/person - from GESF(Table T-2) - UFF for Commercial Flows and Student Flows (Commercial Emppolyee and J11 Community, Social & Personal Services)		
Estimated Dry Weather Flow	$89.00 \text{ m}^3/\text{day}$		
3. Park Sun Redevelopment on 7/F to 26/F Reside	ential		
Nos. of Flat Units	253 the upper-end provison in the proposal		
Average Domestic Household Size	2.7 from 2024 Population Census		
Total Estimated Population	683		
Unit Flow Factor	0.27 m3/day/person - from GESF(Table T-1) - UFF for Domestic Flow (Private R2, Planning for Future)		
Estimated Dry Weather Flow	184.44 m <sup>3</sup> /day		
Total Flow from Proposed Development			
Catchment Inflow Factor	Catchment Inflow Factor = 1.10 (Kwai Chung) from EPD's GESF Table T-4		
Flow Rate	301.70 m <sup>3</sup> /day		
Contributing Population	1117.42 0.27 from EPD's GESF		
Peaking Factor	Peaking Factor=6 for population 1000 - 5000 (including stormwater allowance) from EPD's GESF Table T-5		
Peak Flow	23.05 L/s		