# <u>Interim Sewage Arrangement for</u> Yuen Long South(YLS) Development - Stage 1

#### 1 The issue

1.1 The sewage flow arising from YLS development will be conveyed to the proposed YLS Sewage Treatment Works (STW), which will be in operation by 2033. Prior to completion of YLS STW, YLS Stage 1 has to take up population in 2027. It is necessary to develop an interim sewage arrangement for YLS Development – Stage 1.

# 2 Current Situation

- 2.1 Hung Shui Kiu (HSK) population intake is scheduled for 2024. All sewage generated in HSK NDA from 2024 to 2030 totaling 15,000m<sup>3</sup>/day will be conveyed to San Wai Sewage Treatment Works (SW STW).
- 2.2 All sewage generated in HSK NDA will be diverted back to HSK STW for treatment in 2031.
- 2.3 There is no allocation in SW STW treatment for the YLS Development.
- 2.4 YLS first population intake is scheduled for 2027 and the sewage build-up profile from public housing development in YLS Stage 1 is as follows:

YLS stage 1 Works	Intake Year	Sewage Flow (m <sup>3</sup> /day)			
Public housing of 1200 units (2 blocks)	2027	700			
Public housing of 1800 units (4 blocks)	2029/30	1,100			
Total	-	1,800			

# 3 Proposed Arrangement

- 3.1 According to the HSK implementation plan and sewage build-up profile, the sewage flow arising from the HSK NDA will reach 15,000m<sup>3</sup>/day in 2030. With the slow building up of sewage flow, opportunity can be taken to treat the sewage from YLS Stage 1 during the early stage. By advancing the YLS STW for completion before the sewage flow from HSK NDA reaching maximum, there should not be any impact on the HSK EIA. Detailed proposals are as follow:
  - (a) For the period between 2027 and 2029, sewage generated from the YLS Stage 1 will be conveyed to SW STW for treatment.
  - (b) All sewage generated from the YLS Stage 1 will be diverted back to YLS STW for treatment in 2030.
  - (c) All sewage generated in HSK NDA will be conveyed to SW STW from 2024 to 2030.
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(d) All sewage generated in HSK NDA will be diverted back to HSK STW for treatment in 2031.

# 4. Analysis of the proposed arrangement

4.1 The estimated buildup of sewage flow of YLS Stage 1, HSK NDA are shown in **Table 7.5.1** below:

Year	2024	2025	2026	2027	2028	2029	2030	2031 -
								2035
(1) HSK NDA (m <sup>3</sup> /day)	220	2766	2766	2766	2766	11464	14538	45137
(2) YLS Stage 1 (m <sup>3</sup> /day)	0	0	0	700	700	1800	1800	1800
Total of HSK NDA + YLS stage								
1	220	2766	2766	3466	3466	13264	16338	46937
(m <sup>3</sup> /day)								

#### Table 7.5.1 – Buildup of sewage flow

4.2 It can be seen from the above table that YLS STW has to be in place in 2030 to cater for the YLS development and HSK STW should be in operation in 2031 as planned. With both STWs in place in 2030 and 2031, the cumulative flow to SW STW arising from YLS Stage 1 and HSK NDA between 2024 and 2031 is summarized in **Table 7.5.2** below:

Year	2024	2025	2026	2027	2028	2029	2030	2031
(1) Cumulative sewage flow to SW STW arising from HSK	220	2766	2766	2766	2766	11464	14538	0
NDA (m <sup>3</sup> /day)								
(2) Cumulative sewage flow to								
SW STW arising from YLS	0	0	0	700	700	1800	0	0
stage 1 (m <sup>3</sup> /day)								
(3) Cumulative sewage flow to								
SW STW arising from HSK	220	2766	2766	3466	3466	13264	14538	0
NDA + YLS stage 1 (m <sup>3</sup> /day)								

#### Table 7.5.2 – Cumulative sewage flow to SW STW

4.3 The above table indicates that the sewage arrangement for HKS NDA will not be affected. The proposal will therefore have no bearing on HSK EIA and the implementation plan of HSK NDA.

4.4 The 1,800m<sup>3</sup>/day sewage flow arising from YLS Stage 1 will be connected to the adjacent Lung Tin Pumping Station and finally conveyed to SW STW for treatment as an interim arrangement. An assessment on the capacity of the system will be carried out and improvement works would be proposed if necessary.

# 5 Conclusion

In view of the above, it is proposed 1,800m<sup>3</sup>/day sewage flow arising from YLS Stage 1 to be conveyed via the existing Lung Tin Pumping Station to SW STW from 2027 to 2029 as an interim arrangement. After the commencement of operation of YLS STW in 2030, the 1,800m<sup>3</sup>/day of sewage generated in the YLS Stage 1 will be diverted back to YLS STW for treatment. As the agreed sewage arrangement for HSK NDA (i.e. sewage generated from HSK NDA will be conveyed to SWSTW from 2024 to 2030 and diverted back to HSK STW in 2031) will not be affected, the proposed interim arrangement has no bearing on the HSK EIA.