

Investigation Report for Exceedances of Action Level and Limit Level of Water Quality Monitoring in December 2022

Investigation was carried out in response to exceedances of action/ limit levels during the water quality monitoring in December 2022. The following table summarized details of the exceedances and the results after investigation.

Environmental Team for Hung Shui Kui/ Ha Tsuen New Development Area Stage 1 Works – Site Formation and Engineering Infrastructure								
Date	Station	Parameter (Unit)	Depth-averaged Measured Value	Action Level	Limit Level	Exceedance		Investigation Results
						AL	LL	
6/12	TKW1	DO (mg/L)	2.2	2.8	2.8		✓	When exceedances of action level (AL) and/ or limit level (LL) of <i>in situ</i> water quality monitoring results were observed, the water sampling team had conducted repeat <i>in situ</i> measurements to confirm findings in accordance with the corresponding Event and Action Plan. After confirmation of exceedances, sampling team had taken photos of the sampling point and the surrounding environmental to identify sources of impact. No upstream sediment plume was observed. There was no evidence to demonstrate that the water quality monitoring exceedances were caused by the construction works from Road D1 construction site. Site investigations were carried out by the ET on 9, 16, 23 and 28 December 2022. During the meantime, the Contractor was applying effluent discharge license for the site. No direct effluent discharge from the site was allowed before the license was acquired. The ET did not identify any direct effluent discharge from the site during the site investigations.
	HT		2.2	2.4	2.2	✓		
	TKW	Turbidity (NTU)	26.5	24.2	24.6		✓	
	SW	SS (mg/L)	13.5	9.7	9.9		✓	
8/12	SW	Turbidity (NTU)	22.3	21.4	22.9	✓		
10/12	TKW1	DO (mg/L)	2.4	2.8	2.8		✓	
	TKW		2.4	2.5	2.4	✓		
	SW		2.3	3.7	3.5		✓	
	HT		2.3	2.4	2.2	✓		
13/12	TKW	DO (mg/L)	2.2	2.5	2.4		✓	
	SW		2.0	3.7	3.5		✓	
	HT		2.1	2.4	2.2		✓	
15/12	TKW1	DO (mg/L)	2.3	2.8	2.8		✓	
	SW		3.6	3.7	3.5	✓		
	HT		2.4	2.4	2.2	✓		
	TKW	Turbidity (NTU)	25.1	24.2	24.6		✓	

Environmental Team for Hung Shui Kui/ Ha Tsuen New Development Area Stage 1 Works – Site Formation and Engineering Infrastructure								
Date	Station	Parameter (Unit)	Depth-averaged Measured Value	Action Level	Limit Level	Exceedance		Investigation Results
						AL	LL	
17/12	TKW1	DO (mg/L)	2.5	2.8	2.8		✓	As there is no evidence to indicate that the water quality monitoring results between 6 and 24 December 2022 were affected by the site activities, it is considered that the Action/ Limit level exceedances recorded on 6, 8, 10, 13, 15, 17, 20, 22 and 24 December 2022 were due to other composite factors including surface runoff and effluent discharges from the workshops, open storages, warehouses, private toilet(s) and residential dwellings along the catchment downstream of the site, as well as natural variation of upstream water quality. In conclusion, all water quality monitoring exceedances recorded were considered non-project related.
	TKW		2.3	2.5	2.4		✓	
	SW		3.6	3.7	3.5	✓		
	HT		2.3	2.4	2.2	✓		
20/12	TKW1	DO (mg/L)	2.7	2.8	2.8		✓	
	TKW		2.5	2.5	2.4	✓		
	SW		3.3	3.7	3.5		✓	
	HT		2.3	2.4	2.2	✓		
22/12	TKW1	DO (mg/L)	2.7	2.8	2.8		✓	
	TKW		2.4	2.5	2.4	✓		
	SW		3.6	3.7	3.5	✓		
	HT		2.4	2.4	2.2	✓		
24/12	TKW1	DO (mg/L)	2.2	2.8	2.8		✓	
	SW		3.6	3.7	3.5	✓		
	HT		2.4	2.4	2.2	✓		

Construction activities carried out at Road D1 during the investigation period:

- Site clearance;
- Backfilling & rolling passes;
- Construction of box culvert; and
- Construction of u channel.

Photo Records of Site Investigation:

9 December 2022	
 <p>9/12/2022 15:16</p>	 <p>9/12/2022 15:17</p>
<p>Backfilling was carried out at Site 3-8 near Road D1, no muddy surface runoff was observed during the site inspection.</p>	<p>Idle wastewater treatment facilities on site in December 2022.</p>
16 December 2022	
 <p>16/12/2022 10:14</p>	 <p>16/12/2022 10:19</p>
<p>Muddy surface runoff was diverted to sump pit. No discharge of wastewater offsite was observed during site investigation.</p>	<p>Wastewater was diverted to sump pit. No discharge of wastewater offsite was observed during site investigation.</p>



23 December 2022



All wastewater / surface runoff was collected and diverted to sump pit. Direct effluent discharge was not allowed to be discharged from the site. No discharge of wastewater was observed during site investigation.



Stockpile of dusty materials was covered properly to avoid generation of muddy runoff.

28 December 2022	
 <p style="text-align: right; font-size: small;">28/12/2022 14:53</p>	 <p style="text-align: right; font-size: small;">28/12/2022 15:00</p>
<p>All wastewater / surface runoff was collected and diverted to sump pit. Direct effluent discharge was not allowed to be discharged from the site. No discharge of wastewater was observed during site inspection.</p>	<p>Stockpile of dusty materials was covered properly to avoid generation of muddy runoff.</p>

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Certified by: F. C. Tsang
 Designation: Environmental Team Leader

Signature: 

Signature: 

Date 18 January 2023

Date: 18 January 2023

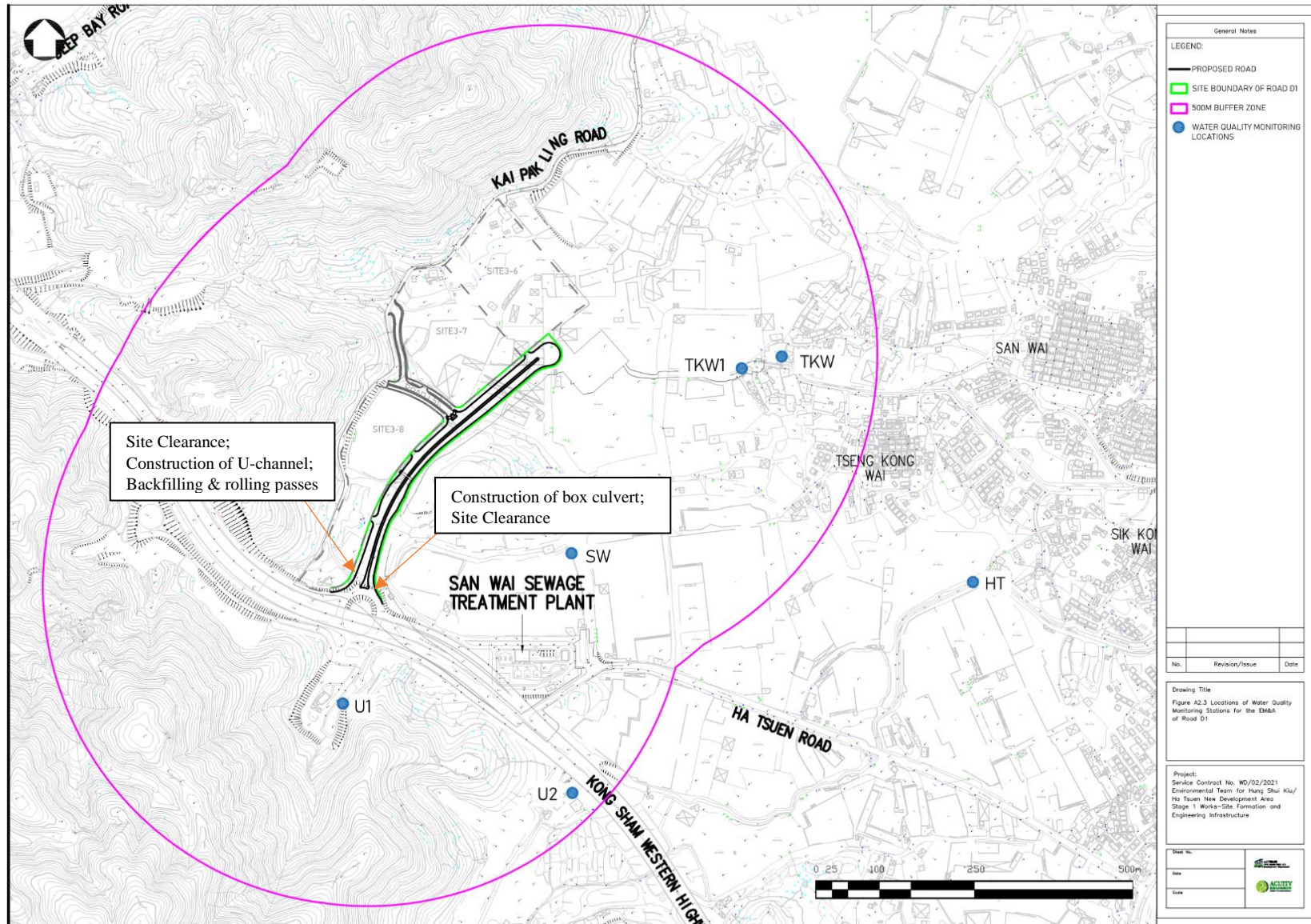


Figure 1 Location Plan of Impact Water Quality Monitoring Stations (Site activities held in December 2022 were reported in text boxes)