

## Investigation Report for Exceedances of Limit Levels of Water Quality Monitoring on 12 March 2024

Investigation was carried out in response to exceedances of limit levels during the water quality monitoring on 12 March 2024. The following table summarizes details of the exceedances.

Environmental Team for Hung Shui Kiu/ 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		Project Related (Y/N)
						AL	LL	
12/03	SW	Dissolved oxygen (DO) (mg/L)	1.6	2.3	2.1		✓	N
	HT		1.6	2.2	2.1		✓	N

<p>Construction activities carried out at and adjacent to Road D1 during the investigation period:</p>	<p>According to the information provided by the engineer representative (RE), the construction works carried out within the site area of Road D1 (Designated Project (DP)) on 12 March 2024 include:</p> <p><u>Site 3-8 (Road D1) at Portion B7</u></p> <ul style="list-style-type: none"> <li>No construction activity.</li> </ul> <p>The construction works carried out at adjoining non-DP works area on 12 March 2024 include:</p> <p><u>Site 3-6 and Site 3-7 (Miss Chan) at Portion B2</u></p> <ul style="list-style-type: none"> <li>No construction activity.</li> </ul> <p><u>Site 3-6 (near Chun Tsuen) (Temporary Stockpile Area) at Portion B1</u></p> <ul style="list-style-type: none"> <li>No construction activity.</li> </ul> <p><u>Site 3-6 (Wing Hong) at Portion B2</u></p> <ul style="list-style-type: none"> <li>General electric work for blower of biopile.</li> <li>Preparation work for Excavation and Lateral Support at SMH-DP-01 to existing channel.</li> <li>General site cleaning.</li> </ul> <p><u>Site 3-7 (near gate B) at Portion A2</u></p> <ul style="list-style-type: none"> <li>General site works.</li> </ul> <p><u>Road L51 at Portion A2</u></p> <ul style="list-style-type: none"> <li>Excavation to expose existing bored pile for lagging wall construction.</li> <li>Trimming concrete to expose starter bar for lagging wall construction.</li> </ul> <p><u>Site 3-7 and Site 3-8 at Portion B6</u></p> <ul style="list-style-type: none"> <li>No construction activity.</li> </ul> <p><u>Site 3-8 (Kai Pak Ling Road) at Portion B6</u></p>
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	<ul style="list-style-type: none"> <li>• No construction activity.</li> </ul> <p><u>Site 3-8 (Box Culvert) at Portion B7</u></p> <ul style="list-style-type: none"> <li>• No construction activity.</li> </ul> <p><u>Site 3-8 (Hung Wan) at Portion B7</u></p> <ul style="list-style-type: none"> <li>• Erecting metal scaffolding of boost up transformer room.</li> </ul>
<p>Possible reason for Action or Limit Level Non-compliance:</p>	<p>As observed during the site inspections on 14 March 2024, the Contractor had implemented on-site measures to control site runoff from Site 3-8, Road D1 and Contaminated Soil Treatment Area, including sump, WetSep and portable pumps for temporary storage and treatment of surface water and site effluent. During dry season, construction effluent from Site 3-6 and Site 3-7 was collected and diverted to the WetSep on site. Treated effluent was stored and reused on site for fugitive dust control. No direct effluent discharge from these sites was recorded.</p> <p>No evidence was found to indicate that the exceedances on 12 March 2024 were affected by the site activities. The non-compliances at SW and HT were considered related to surface runoff from the catchment, effluent discharges from workshops, open storages, warehouse, private toilet(s) and/ or residential dwellings along the catchment downstream of the site.</p> <p>No further exceedance of action or limit levels of DO level at SW and HT was detected during the water quality monitoring on 14 March 2024.</p> <p>In conclusion, the exceedances recorded on 12 March 2024 were considered non-project related.</p>
<p>Action taken / to be taken:</p>	<ol style="list-style-type: none"> <li>1. Repeated in-situ measurements were carried out on site to confirm the exceedances.</li> <li>2. The source of impact may be related to surface runoff, effluent discharges from workshops, open storages, warehouse, private toilet(s) and/ or residential dwellings along the catchment downstream of the site.</li> <li>3. Notifications of exceedances have been issued to the IEC, the Contractor, and the EPD on 21 March 2024.</li> <li>4. Duplicate water samples were collected on site. The monitoring data were checked and confirmed. All plant, equipment and the Contractor's working methods were checked during the site inspection. No non-compliance was observed.</li> <li>5. As no evidence was found to indicate that the exceedances on 12 March 2024 were affected by the site activities, no additional mitigation measure was discussed with the IEC, the</li> </ol>

RE and the Contractor.

6. During the site inspection, the Contractor had implemented on-site measures to control site runoff. The Contractor was reminded to implement/ maintain the following mitigation measures:

Site 3-8 and Road D1

- a. The WetSep and other accessories shall be maintained regularly to minimise malfunction.
- b. Surface run-off from construction sites shall be discharged at the designated discharge point as indicated in the effluent discharge licence for Site 3-8 via adequately designed sand/ silt removal facilities.
- c. The Contractor will provide sump/ detention pond at Site 3-8 to temporary store site runoff prior to treatment.
- d. Channels/ earth bunds/ sandbag barriers will be properly provided on site to direct stormwater to the sump(s).
- e. Any site runoff detained behind the box culvert will be treated by the WetSep at Site 3-8 prior to discharge.

Site 3-6, Site 3-7, and Contaminated Soil Treatment Area

- f. During dry season, construction effluent will be collected and diverted to the Wetsep for treatment and storage. Treated effluent will be reused on site for water spraying and fugitive dust control. No direct discharge of surface runoff or construction effluent is anticipated.
- g. Impervious canvases were deployed to cover the stockpiles at the contaminated soil treatment area to minimise contaminated surface runoff.
- h. Perimeter channels, sump pits and leachate collection tanks were installed at the contaminated soil treatment area to collect and store leachate from the stockpiles of excavated materials to eliminate untreated leachate escaping from the treatment area.

7. According to the information provided by RE, there was no effluent discharge related activity carried out within the Site 3-8 on 12 March 2024. Therefore, the frequency of monitoring was not increased as the exceedance was preliminarily considered non-project related. No further action or limit level exceedances of DO at SW and HT were recorded on 14 March 2024.

Date		14 March 2024
Parameters		DO
Stations		(mg/L)
SW		2.4
HT		4.0

**Photo Records of Site Inspection held by the ET on 14 March 2024**

***Site 3-8 and Road D1***



(P1)

Stockpile of dusty materials was pouring with concrete to avoid generation of muddy runoff. No muddy surface runoff was observed during the site inspection.



(P2)

Surface runoff and site effluent were collected and diverted to the WetSep for temporary storage and treatment before the water was used for fugitive dust suppression on site.

**Contaminated Soil Treatment Area (Portion B2) (Non-DP area)**



(P3)

Contaminated materials were stocked on site.



(P4)

Stockpiles within the contaminated soil treatment area were covered by impervious canvases. Leachate collection tanks were also in place.



(P5)

Perimeter channels were installed outside the contaminated soil treatment area.



(P6)

A WetSep was provided on site to treat and store construction effluent from Site 3-6, Site 3-7, and Contaminated Soil Treatment Area. No off-site effluent discharge was recorded in March 2024.

**Site Photos on 12 March 2024 provided by the RE**

***Site 3-8 and Road D1 (Portion B7)***



(R1)

No effluent discharge from the site was observed.

***Contaminated Soil Treatment Area (Portion B2) (Non-DP area)***



(R2)

The contaminated soil treatment area would be covered by impervious canvas during treating contaminated soil. No surface runoff or effluent was leaked from the contaminated soil treatment area during the site inspection.

**Site 3-6 (Portion A2) (Non-DP area)**

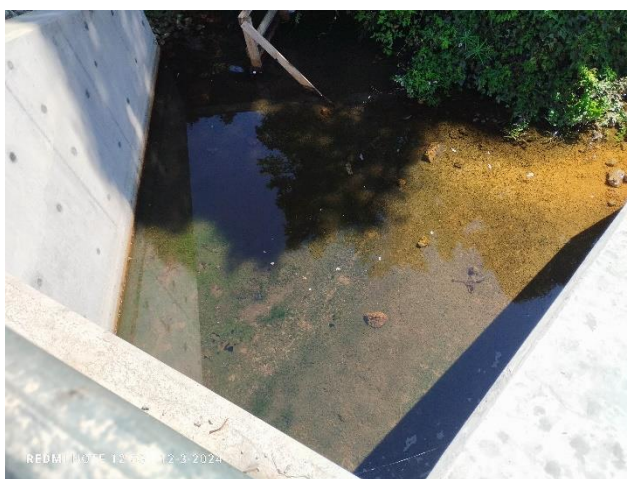


(R3)

No effluent discharge from the site was observed.

**Discharge Point**

**Site 3-8 and Road D1 (Portion B7)**



(R4)

No off-site effluent discharge was recorded in March 2024.

**Contaminated Soil Treatment Area (Portion B2)**



(R5)

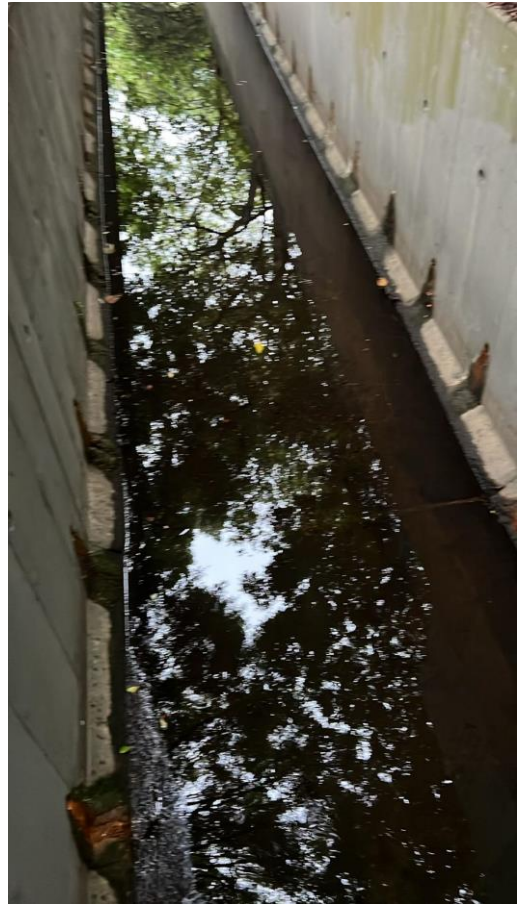
No off-site effluent discharge was recorded in March 2024.

**Site Observation Photos around Water Quality Monitoring Stations taken by the ET on 12 March 2024**



(W1)

Water Quality Monitoring Station: SW

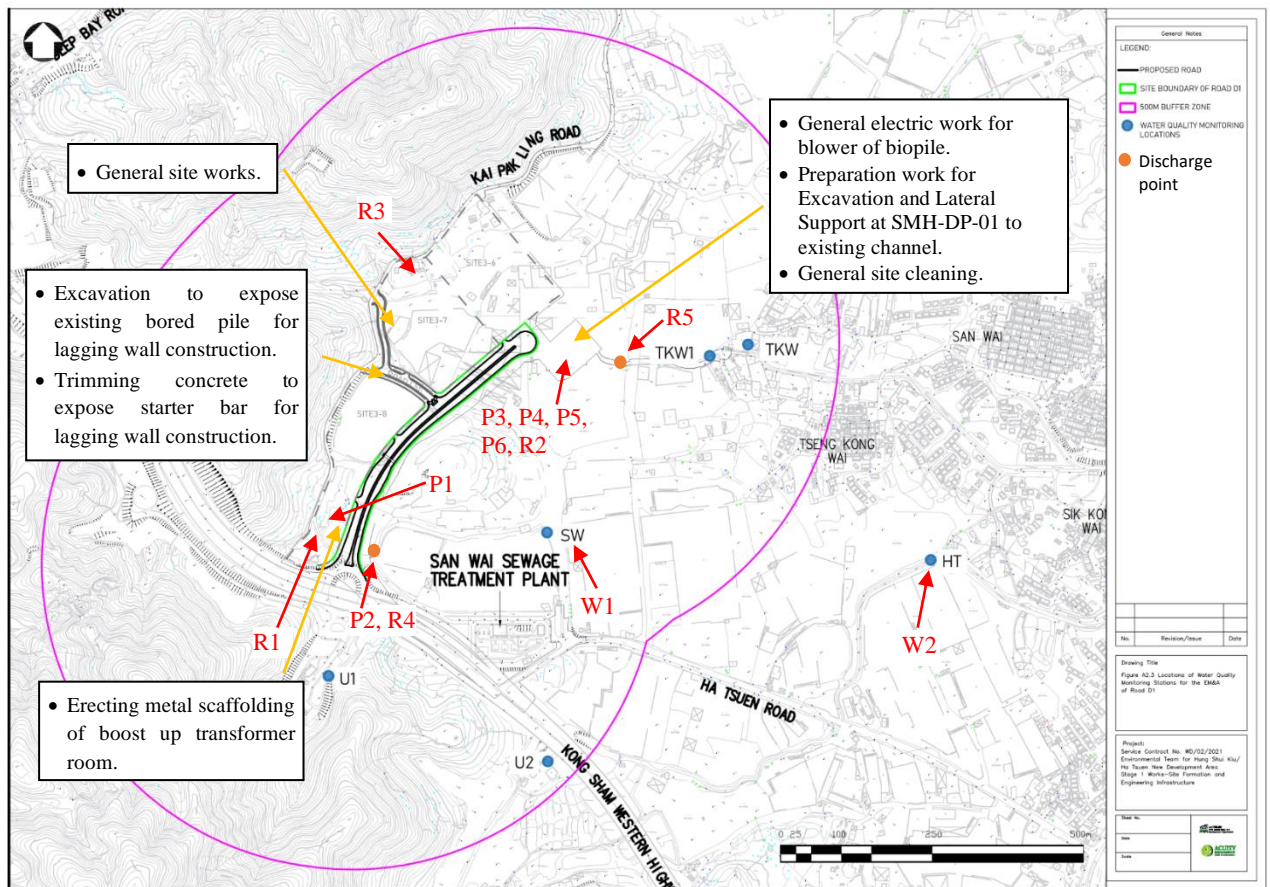


(W2)

Water Quality Monitoring Station: HT



**Figure 1 Location Plan of Impact Water Quality Monitoring Stations (Site activities held on 12 March 2024 were reported in text boxes)**



Prepared by:	Angel Lee	Certified by:	F. C. Tsang
Designation:	Environmental Team Member	Designation:	Environmental Team Leader
Signature:		Signature:	
Date:	12 April 2024	Date:	12 April 2024

## Investigation Report for Exceedance of Limit Level of Water Quality Monitoring on 14 March 2024

Investigation was carried out in response to an exceedance of limit level during the water quality monitoring on 14 March 2024. The following table summarizes details of the exceedance.

<b>Environmental Team for Hung Shui Kiu/ Ha Tsuen New Development Area Stage 1 Works – Site Formation and Engineering Infrastructure</b>								
Date	Station	Parameter (Unit)	Depth-averaged Measured Value	Action Level	Limit Level	Exceedance		Project Related (Y/N)
						AL	LL	
14/03	TKW1	Turbidity (NTU)	24.4	16.4	17.6		✓	N

<p>Construction activities carried out at and adjacent to Road D1 during the investigation period:</p>	<p>According to the information provided by the engineer representative (RE), the construction works carried out within the site area of Road D1 (Designated Project (DP)) on 14 March 2024 include:</p> <p><u>Site 3-8 (Road D1) at Portion B7</u></p> <ul style="list-style-type: none"> <li>No construction activity.</li> </ul> <p>The construction works carried out at adjoining non-DP works area on 14 March 2024 include:</p> <p><u>Site 3-6 and Site 3-7 (Miss Chan) at Portion B2</u></p> <ul style="list-style-type: none"> <li>No construction activity.</li> </ul> <p><u>Site 3-6 (near Chun Tsuen) (Temporary Stockpile Area) at Portion B1</u></p> <ul style="list-style-type: none"> <li>No construction activity.</li> </ul> <p><u>Site 3-6 (Wing Hong) at Portion B2</u></p> <ul style="list-style-type: none"> <li>General electric work for blower of biopile.</li> <li>Excavation and lay blinding layer for DN1650 concrete pipe laying.</li> <li>General site works.</li> </ul> <p><u>Site 3-7 (near gate B) at Portion A2</u></p> <ul style="list-style-type: none"> <li>No construction activity.</li> </ul> <p><u>Road L51 at Portion A2</u></p> <ul style="list-style-type: none"> <li>Trimming concrete to expose starter bar for lagging wall construction.</li> </ul> <p><u>Site 3-7 and Site 3-8 at Portion B6</u></p> <ul style="list-style-type: none"> <li>No construction activity.</li> </ul> <p><u>Site 3-8 (Kai Pak Ling Road) at Portion B6</u></p> <ul style="list-style-type: none"> <li>No construction activity.</li> </ul> <p><u>Site 3-8 (Box Culvert) at Portion B7</u></p> <ul style="list-style-type: none"> <li>No construction activity.</li> </ul>
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	<p><u>Site 3-8 (Hung Wan) at Portion B7</u></p> <ul style="list-style-type: none"> <li>• Rebar fixing for boost up transformer room wall to roof.</li> </ul>
<p>Possible reason for Limit Level Non-compliance:</p>	<p>As observed during the site inspections on 14 March 2024, the Contractor had implemented on-site measures to control site runoff from Site 3-8, Road D1 and Contaminated Soil Treatment Area, including sump, WetSep and portable pumps for temporary storage and treatment of surface water and site effluent. During dry season, construction effluent from Site 3-6 and Site 3-7 was collected and diverted to the WetSep on site. Treated effluent was stored and reused on site for fugitive dust control. No direct effluent discharge from these sites was recorded.</p> <p>No evidence was found to indicate that the exceedance on 14 March 2024 was affected by the site activities. The non-compliances at TKW1 was considered related to surface runoff from the catchment, effluent discharges from workshops, open storages, warehouse, private toilet(s) and/ or residential dwellings along the catchment downstream of the site.</p> <p>No further exceedance of action or limit level of turbidity level at TKW1 was detected during the water quality monitoring on 15 and 16 March 2024.</p> <p>In conclusion, the exceedances recorded on 14 March 2024 were considered non-project related.</p>
<p>Action taken / to be taken:</p>	<ol style="list-style-type: none"> <li>1. Repeated in-situ measurement of turbidity level at TKW1 was carried out to confirm the exceedance.</li> <li>2. The source of impact may be related to surface runoff, effluent discharges from workshops, open storages, warehouse, private toilet(s) and/ or residential dwellings along the catchment downstream of the site.</li> <li>3. Notification of exceedance was issued to the IEC, the Contractor, and the EPD on 15 March 2024.</li> <li>4. Duplicate water samples were collected on site. The monitoring data were checked and confirmed. All plant, equipment and the Contractor's working methods were checked during the site inspection. No non-compliance was observed.</li> <li>5. As no evidence was found to indicate that the exceedance on 14 March 2024 was affected by the site activities, no additional mitigation measure was discussed with the IEC, the RE and the Contractor.</li> <li>6. During the site inspection, the Contractor had implemented on-</li> </ol>

	<p>site measures to control site runoff. The Contractor was reminded to implement/ maintain the following mitigation measures:</p> <p><u>Site 3-8 and Road D1</u></p> <ol style="list-style-type: none"> <li>a. The WetSep and other accessories shall be maintained regularly to minimise malfunction.</li> <li>b. Surface run-off from construction sites shall be discharged at the designated discharge point as indicated in the effluent discharge licence for Site 3-8 via adequately designed sand/ silt removal facilities.</li> <li>c. The Contractor will provide sump/ detention pond at Site 3-8 to temporary store site runoff prior to treatment.</li> <li>d. Channels/ earth bunds/ sandbag barriers will be properly provided on site to direct stormwater to the sump(s).</li> <li>e. Any site runoff detained behind the box culvert will be treated by the WetSep at Site 3-8 prior to discharge.</li> </ol> <p><u>Site 3-6, Site 3-7, and Contaminated Soil Treatment Area</u></p> <ol style="list-style-type: none"> <li>f. During dry season, construction effluent will be collected and diverted to the Wetsep for treatment and storage. Treated effluent will be reused on site for water spraying and fugitive dust control. No direct discharge of surface runoff or construction effluent is anticipated.</li> <li>g. Impervious canvases were deployed to cover the stockpiles at the contaminated soil treatment area to minimise contaminated surface runoff.</li> <li>h. Perimeter channels, sump pits and leachate collection tanks were installed at the contaminated soil treatment area to collect and store leachate from the stockpiles of excavated materials to eliminate untreated leachate escaping from the treatment area.</li> </ol> <p>7. The frequency of monitoring was increased at TKW1 from 15 March 2024. No further action or limit level exceedances of turbidity level at TKW1 were recorded on 15 and 16 March 2024. Daily monitoring was therefore ceased after 16 March 2024. The following table summarizes the monitoring results of turbidity level at TKW1 on 15 and 16 March 2024.</p> <table border="1" data-bbox="660 1675 1485 1852"> <thead> <tr> <th>Date</th> <th>15 March 2024</th> <th>16 March 2024</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Parameters</td> <td style="text-align: center;">Turbidity</td> <td style="text-align: center;">Turbidity</td> </tr> <tr> <td style="text-align: center;">Stations</td> <td style="text-align: center;">(NTU)</td> <td style="text-align: center;">(NTU)</td> </tr> <tr> <td>TKW1</td> <td style="text-align: center;">5.0</td> <td style="text-align: center;">4.2</td> </tr> </tbody> </table>	Date	15 March 2024	16 March 2024	Parameters	Turbidity	Turbidity	Stations	(NTU)	(NTU)	TKW1	5.0	4.2
Date	15 March 2024	16 March 2024											
Parameters	Turbidity	Turbidity											
Stations	(NTU)	(NTU)											
TKW1	5.0	4.2											

**Photo Records of Site Inspection held by the ET on 14 March 2024**

***Site 3-8 and Road D1***



(P1)

Stockpile of dusty materials was pouring with concrete to avoid generation of muddy runoff. No muddy surface runoff was observed during the site inspection.



(P2)

Surface runoff and site effluent were collected and diverted to the WetSep for temporary storage and treatment before the water was used for fugitive dust suppression on site.

***Contaminated Soil Treatment Area (Portion B2) (Non-DP area)***



(P3)

Contaminated materials were stocked on site.



(P4)

Stockpiles within the contaminated soil treatment area were covered by impervious canvases. Leachate collection tanks were also in place.



(P5)

Perimeter channels were installed outside the contaminated soil treatment area.



(P6)

A WetSep was provided on site to treat and store construction effluent from Site 3-6, Site 3-7, and Contaminated Soil Treatment Area. No off-site effluent discharge was recorded in March 2024.

**Site Photos on 14 March 2024 provided by the RE**

***Site 3-8 and Road D1 (Portion B7)***



(R1)

No effluent discharge from the site was observed.

***Contaminated Soil Treatment Area (Portion B2) (Non-DP area)***



(R2)

The contaminated soil treatment area would be covered by impervious canvas during treating contaminated soil. No surface runoff or effluent was leaked from the contaminated soil treatment area during the site inspection.



**Site 3-6 (Portion A2) (Non-DP area)**



(R3)

No effluent discharge from the site was observed.

**Discharge Point**

**Site 3-8 and Road D1 (Portion B7)**



(R4)

No off-site effluent discharge was recorded in March 2024.

**Contaminated Soil Treatment Area (Portion B2)**



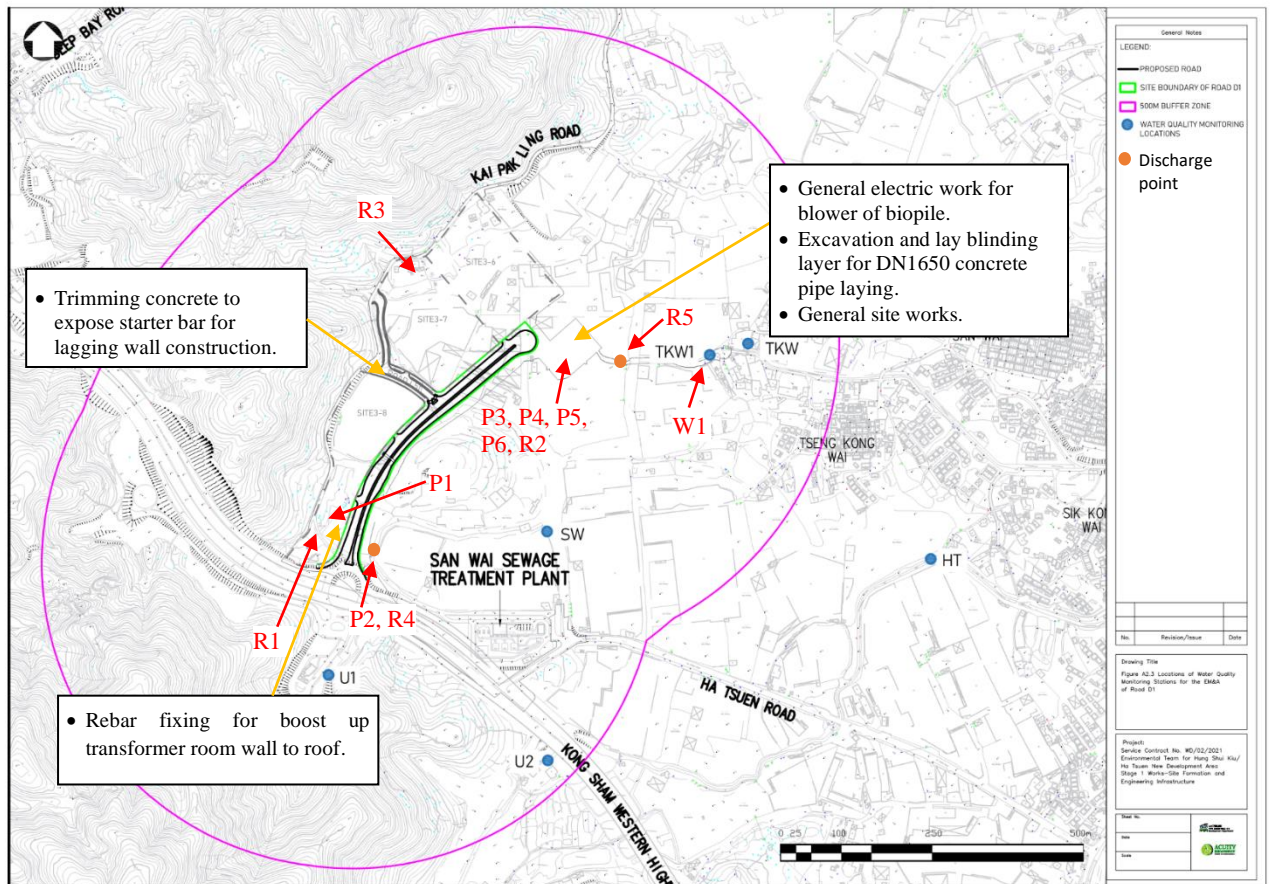
(R5)

No off-site effluent discharge was recorded in March 2024.

### Site Observation Photos around Water Quality Monitoring Stations taken by the ET on 14 March 2024



**Figure 1 Location Plan of Impact Water Quality Monitoring Stations (Site activities held on 14 March 2024 were reported in text boxes)**



Prepared by:	Angel Lee	Certified by:	F. C. Tsang
Designation:	Environmental Team Member	Designation:	Environmental Team Leader
Signature:		Signature:	
Date:	9 April 2024	Date:	9 April 2024