



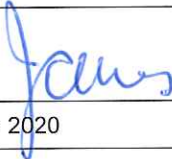
**Agreement No. CM 14/2018**

**Independent Environmental Checker Services for  
Expansion of Sha Tau Kok Sewage Treatment  
Works**

**Proposal on Reporting Mechanism**

for

**Drainage Services Department**

Prepared By	Checked By	Approved for Issue	
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<p>The information contained in this report is, to the best of our knowledge, correct at the time of printing. The interpretation and recommendations in the report are based on our experience, using reasonable professional skill and judgment, and based upon the information that was available to us. These interpretations and recommendations are not necessarily relevant to any aspect outside the restricted requirements of the brief. This report has been prepared for the sole and specific use of our client and ANewR Consulting Limited accepts no responsibility for its use by others.</p> <p>This report is copyright and may not be reproduced in whole or in part without prior written permission. All rights reserved.</p>			

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## 1. INTRODUCTION

### 1.1 Background

1.1.1 ANewR Consulting Limited (ANewR) was commissioned by Drainage Services Department (DSD) on 28 January 2019 to undertake the Independent Environmental Checker (IEC) services as required and/or implied, both explicitly and implicitly, in the relevant documents under the Environmental Impact Assessment Ordinance (EIAO) including Environmental Permit (EP), Environmental Impact Assessment Report (EIA Report) and Environmental Monitoring and Audit Manual (EM&A Manual) for the Expansion of Sha Tau Kok Sewage Treatment Works (STKSTW) (the Project).

### 1.2 Project Description

1.2.1 DSD is implementing the Contract No. DC/2018/03 – Expansion of STKSTW Phase 1 and Village Sewerage in Tong To. The works under the Contract mainly comprises:

- (i) increasing the treatment capacity of STKSTW to 5,000 m<sup>3</sup>/day at ADWF in Phase 1, with suitable allowance to cater for a further increase of treatment capacity to 10,000 m<sup>3</sup>/day at ADWF;
- (ii) construction of a temporary sewage treatment plant (TSTP);
- (iii) demolition of the existing Sha Tau Kok Sewage Pumping Station (STKSPS) and decommissioning of the rising main between STKSPS and STKSTW;
- (iv) construction of a new gravity sewer; and
- (v) decommissioning of the existing submarine outfall and construction of a new one.

1.2.2 The following elements of the Project are classified as Designated Projects (DP) under the EIAO and are addressed in the EIA Report:

- (i) Schedule 2, Part I, Item F.2(a) and (b)(i) – Sewage Treatment Works with an installed capacity of more than 5,000m<sup>3</sup> per day; and a boundary of which is less than 200m from the nearest boundary of the existing residential area;
- (ii) Schedule 2, Part I, Item F.6 – a submarine outfall; and
- (iii) Schedule 2, Part I Item F.4 – an activity for the reuse of treated sewage effluent from a treatment plant.

1.2.3 The Project site will be within the existing STKSTW while the construction of the gravity sewers and demolition of STKSPS will be carried out in Sha Tau Kok Town. The proposed submarine outfall will be constructed by Horizontal Directional Drilling (HDD) method under the sea bed of Starling Inlet.

1.2.4 The Project location is shown in *Figure 1.1*.

### 1.3 Objective of the Report

This proposal was prepared in respond to the Condition 2.5 of the EP (No.: EP-517/2017/A), which stated that the IEC shall submit a proposal, no later than 1 month before the commencement of the construction of the Project, on the reporting mechanism covering the approaches for the IEC and the team to report to the Director of Environmental Protection (the DEP) on the following aspects:

- (i) How to discharge all the duties specified under the EM&A programme and the EP, taking into account the construction activities and programme of the Project;

- (ii) How to handle each and every change of circumstances, emergency events relating to violation of environmental legislation (such as illegal dumping and landfilling relating to the Project) or non-compliance (including suspects of non-compliance) with the recommendations (such as construction methods, mitigation measures, and environmental standards) of the approved EIA Report (Register No. AEIAR-207/2017), the EM&A Manual and the EP, which might affect the monitoring or control of adverse environmental impacts from the Project; and
- (iii) How to keep proper records in order to respond to questions and enquires from the DEP on the EM&A programme and duties discharged by the IEC.

## **2. DUTIES OF THE IEC**

### **2.1 Overview**

2.1.1 As referred to the EM&A Manual of the Project and Condition 2.6 of the EP No. 517/2017/A, the main duties of the IEC are to carry out independent environmental audit of the Project. This shall include the followings:

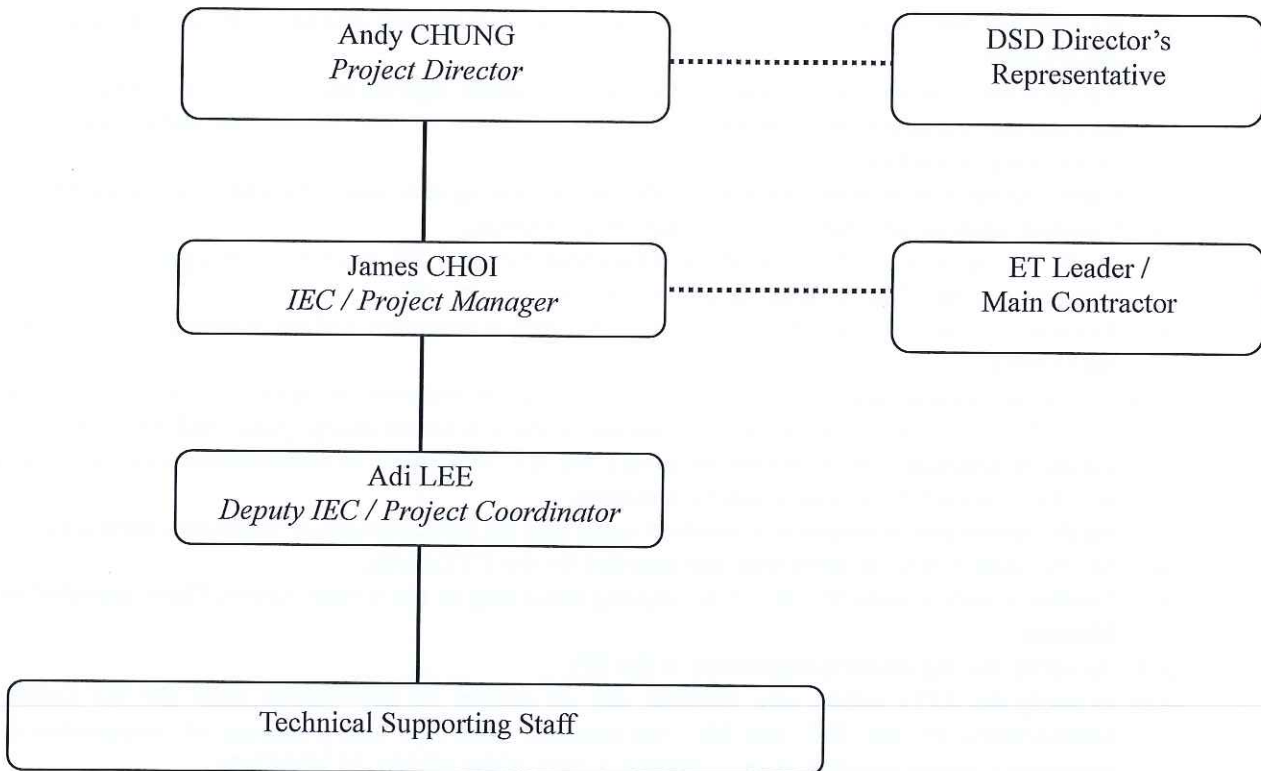
- (i) Review and audit in an independent, objective and professional manner in all aspects of the EM&A programme;
- (ii) Validate and confirm the accuracy of monitoring results, appropriateness of monitoring equipment, monitoring locations with reference to the locations of the nearby sensitive receivers, and monitoring procedures;
- (iii) Carry out random sample check and audit on monitoring data and sampling procedures, etc.;
- (iv) Conduct random site inspection (at least once a month);
- (v) Audit the approved EIA Report recommendations and EP requirements against the status of implementation of environmental protection measures on site;
- (vi) Review the effectiveness of environmental mitigation measures and environmental performance of the Project;
- (vii) On an as needed basis, verify and certify the environmental acceptability of the construction methodology (both temporary and permanent works), relevant design plans and submissions under the environmental permit. Where necessary, the IEC shall agree in consultation with the ET Leader and the Contractor the least impact alternative;
- (viii) Verify investigation results of complaint cases and the effectiveness of corrective measures;
- (ix) Verify EM&A reports submitted and certified by the ET Leader;
- (x) Feedback audit results to ER/ ET by signing according to the Event/ Action Plans specified in this Manual;
- (xi) to verify the log-book(s) mentioned in the EP;
- (xii) to notify the EPD within one working day of receipt of notification from the ET Leader, or identification by the IEC and his / her team, of each and every change of circumstances and emergency events mentioned in Condition 2.5(ii) of the EP No. 517/2017/A;
- (xiii) to liaise closely with the EPD;
- (xiv) to accompany the EPD in carrying out site inspections and attending meetings when requested;
- (xv) to offer objective and professional advice on environmental issues, when requested, and to respond to questions and enquiries from the EPD on the EM&A programme and duties discharged by the IEC, with the support of relevant information, documents and records as appropriate; and
- (xvi) to allocate adequate resources, including any necessary specialist support, for discharging the duties required in this Permit and the EM&A Manual.

### 3. ORGANISATION OF THE IEC TEAM

#### 3.1 Organisation Chart

3.1.1 The organisation chart of the IEC team is shown in *Figure 3-1*.

**Figure 3-1 Organisation Chart**



#### 3.2 Duties of Key Staff

3.2.1 Condition 2.4 of the EP required that a single IEC with a supporting team shall be deployed for the project. The minimum on-site time for the IEC and his/her team shall be proposed for the approval of the DEP.

3.2.2 As such, during the construction works, it is proposed that the IEC and his/her team shall be presence at the Project site at least 8 hours per week during office hours (0900 to 1800 hours on normal weekday). The justification of the minimum on-site time of the IEC and his team is shown in *Table 3-1*.

**Table 3-1 Justification of the Minimum On-Site Time of the IEC and His Team**

Works to be carried on-site	Purposes	Man-hour Required (hour) per week
General site inspection or Monthly site inspection	<ul style="list-style-type: none"> <li>To ensure the EIA recommendations and EP requirements are complied with</li> <li>To review the effectiveness of environmental mitigation measures and environmental performance of the Project</li> <li>To identify any environmental deficiency needs to be improved</li> <li>To identify in any environmental non-compliance</li> </ul>	2 x 2 hours general site inspection or 1 x 4 hours monthly site inspection
Inspection of on-site ET Logbook	<ul style="list-style-type: none"> <li>To inspect and audit the on-site logbook kept by the ET</li> </ul>	1
Audit of Monitoring Works by the ET	<ul style="list-style-type: none"> <li>To check, audit and verify the environmental monitoring equipment, procedures, data and results of the environmental monitoring works carried out by the ET</li> </ul>	1.5
Meeting with ER, ET and Contractor	<ul style="list-style-type: none"> <li>To discuss with ER, ET and Contractor any observations that improvement works is required to enhance the overall environmental performance</li> <li>To discuss with ER, ET and Contractor any environmental non-compliance identified and follow up actions required</li> </ul>	1.5

3.2.3 It is deemed that the minimum on-site time is the minimum time the IEC and his team required to perform necessary on-site works to discharge the relevant duties of the IEC. The proposed 8 hours per week on-site time of the IEC and/or his team will serve as a base case. In case there are critical activities, exceedance of monitoring parameters, project related environmental complaint, the IEC and his team will base on the actual site conditions as observed during the routine general site inspection works to determine the necessity of increasing the on-site time.

3.2.4 Having reviewed the latest construction programme from the contractor, critical activities in the programme which would arise potential environmental impacts of concern are listed in *Table 3-2*. *Table 3-2* also proposes the recommended increased on-site time of the IEC and his team as necessary to discharge the duties during critical activities. The proposed on-site time will be reviewed monthly against the updated construction programme and actual site activities and agreement of EPD. The construction programme is given in *Appendix A*.

**Table 3-2 Recommended Increased On-Site Time of the IEC and His Team during Critical Activities**

Critical Construction Activities	Tentative Programme	Recommended Increased Man-hour per Week On-site Time of the IEC Team*
Construction of submarine outfall in Starling Inlet by Horizontal Directional Drilling	Mid April 2020 to late February 2021	4 (i.e. total 12)
Demolition of the Existing STKSTW	Mid June 2020 to early July 2020	4 (i.e. total 12)
Additional inspection for the operation of TSTP and sample monitoring works during the first year of operation	Mid June 2020 to mid May 2021	2 (i.e. total 10)
Construction of cofferdam for the diffuser of submarine outfall	May 2021 to July 2021	4 (i.e. total 12)
Dredging of Marine Deposit for Diffuser	Late August 2021 to early October 2021	4 (i.e. total 12)
Demolition of the Existing STKSPS	Late May 2023 to early July 2023	4 (i.e. total 12)

\* The recommended increased on-site time will be reviewed subject to the updated construction programme and actual situation of on-site activities. These will be reviewed and proposed if any changes monthly to be agreed with EPD.

- 3.2.5 Should the IEC cannot attend the site, for example due to sickness, annual leave, etc, the IEC or deputy IEC shall inform the EPD, DSD, ET and Engineer Representative (ER) as soon as possible. The deputy IEC will assist in discharging his duties.
- 3.2.6 If the IEC is unable to carry out his duty, a replacement shall be proposed by the Permit Holder for DEP's approval under EP Condition 2.4.
- 3.2.7 Key staffs of the IEC team are presented below:
- (i) Project Director will oversee the operation of the IEC Team and ensure that adequate professional, technical and administrative resources are allocated to the team to carry out its duties as stipulated in *Section 2*.
  - (ii) IEC / Project Manager will be responsible for day-to-day management and conduct the duties of the IEC as stipulated in *Section 2*. He will be the main coordinator between various parties of the project, including the DSD, the EPD, the ET, the Contractor, other Government Departments and other related stake holders.
  - (iii) Deputy IEC / Project Coordinator is responsible to take up the role of the IEC in his absence as discussed in *Section 3.2.2*. He will conduct all tasks assigned to the IEC and assist the IEC to coordinate with relevant parties of the Project.
  - (iv) Technical Staff will support the IEC/ Deputy IEC to conduct site inspections, random sample check, and other document review, preparation of the audit reports when necessary.



## 4. PROPOSED REPORTING MECHANISM

### 4.1 Overview

4.1.1 The reporting mechanism for the Project is described in this section. The duties of the IEC for this Project can be summarised in the following aspects:

- (i) Document and data verification, for all submissions under the EM&A Manual and the EP, which may include, Baseline Environmental monitoring Report, monthly/quarterly EM&A Reports, Demolition Noise Mitigation Measures Plan, Pre-construction Survey Report for the Night Roosting Site for Great Egret, Commissioning Test Report for Temporary Sewage Treatment Plant/Expanded STKSTW, Emergency Response Plan, Water Quality Monitoring Report for Emergency Discharge, detailed Landscape and Planting Plan, site audit checklists.
- (ii) Conduct tasks defined in the Event and Action Plans of the EM&A Manual where applicable, and check the mitigation measures submitted by the Contractor in accordance with the Event and Action Plans;
- (iii) Site inspections and audits, either accompanying DEP or not, scheduled or *ad hoc*, or other site inspections required for the EM&A programme;
- (iv) Attend relevant site meetings such as scheduled Site Safety and Environmental Management Committee (SSEMC) meetings as and when required, liaison meeting with DSD, ET, ER and Contractors regarding to the EM&A programme implementation, liaison meeting with the EPD, etc;
- (v) Offer objective and professional advice on environmental issues and the EM&A works performed by the ET; and
- (vi) Report to the DSD and the DEP, including the monthly submission of the Monthly Audit Report (MA Report), notification to DEP of each and every instance or circumstance or change of circumstances, and other submissions prepared by the IEC for the EM&A Programme.

4.1.2 The detailed methodology on discharging the duties mentioned above are given in *Section 4.2* to *Section 4.4*. *Table 4-1* summarises the actions in table for easy reference.

### 4.2 Discharge of Routine Duties

#### Document and Data Verification

- 4.2.1 All submissions under the EM&A Manual and the EP, which include, Baseline Environmental monitoring Report, monthly/quarterly EM&A Reports, Demolition Noise Mitigation Measures Plan, Pre-construction Survey Report for the Night Roosting Site for Great Egret, Commissioning Test Report for Temporary Sewage Treatment Plant/Expanded STKSTW, Emergency Response Plan, Water Quality Monitoring Report for Emergency Discharge, detailed Landscape and Planting Plan, site audit checklists shall be received via e-mail with or without a hard copy. If no soft copy is given, those submission will be scanned as .PDF files by the IEC team.
- 4.2.2 Response for each document submitted shall be made within five working days upon receipt. Monthly EM&A Report shall be commented or verified within three working days.
- 4.2.3 Verification letters will be printed for signature. Signed letter will be saved and recorded according to our ISO-9001:2015 quality system.

- 4.2.4 On-site logbook kept by ET as required by the EP Condition 2.2(v) shall be inspected on weekly basis. After each weekly inspection of the on-site logbook, and any instance or circumstance or change of circumstances will be acknowledged by signature onto the logbook, and no soft copy will be kept. Other documents kept on-site on similar manner, if any, will be treated in the same way.
- 4.2.5 Environmental monitoring data will be audited by the IEC once per month, additional audits may be conducted where necessary. In addition, the IEC team will conduct surprise checks on the environmental programme at least quarterly to ensure the ET carry out monitoring according to the procedures in the EP, EIA Report and EM&A Manual.

#### Compliance with the Event and Action Plan

- 4.2.6 Exceedance on monitoring results, including noise and water quality will be recorded by the ET, and ET shall inform IEC, contractor and ER in accordance to the EM&A Manual. Upon receipt of any exceedance event, IEC shall carry out the actions specified in the Event and Action Plan of the EM&A Manual, and upon receive of mitigation measures proposed by the contractor, to review and verify the effectiveness of the proposed mitigation measures.
- 4.2.7 Where necessary, IEC shall discuss with relevant parties including Contractor, ET and ER regarding the proposed mitigation measures. Ad-hoc site inspections shall be arranged as necessary to ensure the mitigation measures proposed is properly implemented and exceedances are rectified.
- 4.2.8 Verification of monitoring data will be conducted whenever an exceedance is recorded. *Ad hoc* inspections shall be arranged if it is deemed necessary.
- 4.2.9 ET shall conduct investigation and submit an Investigation Report on each exceedance event, IEC will review the report and include any additional proposal or recommendations as necessary before the submission to EPD by ET.
- 4.2.10 Environmental complaints are in normal case be directed to EPD, ER, Contractor or ET and the ET shall carry out complaint investigation procedure and prepare complaint investigation report (CIR) according to the EM&A Manual. IEC will review the report and include any additional proposal or recommendations as necessary before the submission to EPD by ET. Necessary site inspection will be carried out by IEC and/or his team to review the effectiveness of the mitigation measures.

#### Site Inspections and Audits

- 4.2.11 Site inspections and audits will either be a scheduled one, or an *ad hoc* one. Scheduled site inspections are monthly site inspections and audits arranged by ET, ER, DSD or EPD, for example, Site Safety and Environmental Management Committee (SSEMC) shall hold a joint site inspection once per month. IEC team will assign staff to conduct the scheduled site inspections and audits where necessary.
- 4.2.12 *Ad hoc* site inspections and audits may be arranged if there is exceedance event identified, or improvement on mitigation measures is proposed, or instance or circumstance or change of circumstances has been identified, to ensure the Contractor comply with the proposed actions. Ad-hoc site inspections initiated by other parties, including EPD or ET, will be facilitated as far as possible.
- 4.2.13 After site inspections and audits, an IEC Site Inspection Report will be prepared. The report shall include information including the date and time of the inspections, works area and activities inspected, will be recorded. The report will include the implementation status of the mitigation measures (e.g. waste management, dust control, noise mitigation, water quality protection etc), any observation and/or deficiency (mud trails outside the construction site, oil leakage, deviation from the mitigation measures in the approved plans, etc) identified during the inspection, and any mitigation measures proposed in

response to the observations. Photo records will also be included for reference. The IEC Site Inspection Report will be submitted to DSD and EPD and copied to the contractor, ET, and ER for their record.

- 4.2.14 Site inspection and audits will be conducted at least once per month. Additional audits will be conducted when necessary. IEC Site Inspection Report will be submitted to DSD and EPD and copied to the contractor, ET, and ER for their record for each site inspection and audit conducted before the end of the next working day.

Attend meetings

- 4.2.15 Meetings to be attended by IEC would include the site environmental meetings on an as needed-basis and liaison meeting with DSD, ET, ER and contractor regarding to the EM&A programme implementation.
- 4.2.16 During special periods, e.g. during initial stage of a new construction contract, additional meetings with EPD may be required. Where necessary, increased frequency of regular meetings with EPD will be conducted.
- 4.2.17 As necessary and when requested, IEC shall accompany EPD to attend meetings with 3<sup>rd</sup> parties (e.g. District council, Rural Committee, etc.).

Offer objective and professional advice on environmental issues

- 4.2.18 IEC team will take a proactive approach when offering advices on environmental issues. During the routine inspection, the IEC team may identify environmental issues or identify potential risks, for example a new type of construction works to be commenced that may lead to environmental issues. The IEC team shall then evaluate the potential risks of the issues, such as the likeliness of exceedance, potential breach of environmental legislation and propose suitable mitigation measures, including implementing additional mitigation measures, or apply for appropriate license, etc. The IEC team will constantly review the data collected and conduct *ad hoc* site inspections where necessary, and report the findings to the DSD and the EPD by the end of the next working day. Any findings and advices made in the reporting month will be summarised in the corresponding Monthly Audit (MA) Report to be submitted to DSD and copied to EPD.

Report to the DSD and the DEP

- 4.2.19 Routine submission including MA Report will be submitted to DSD on a monthly basis. The Report will be prepared in accordance to the template agreed with DSD. The MA Report will be copied to EPD as a routine reporting mechanism.
- 4.2.20 The IEC team will also review the EM&A works performed by the ET by reviewing the monitoring data collected by ET. Whenever the latest monitoring result is available, IEC team will review and compare against previous results to assess the EM&A performance of the ET. Findings will be provided monthly and presented in the MA Report.
- 4.2.21 In addition, IEC shall in constantly contact with DSD and EPD on any circumstances or observations. As such informal communications would be achieved whenever convenient, especially when any circumstances have been suspected.

**4.3 Handle Each and Every Change of Circumstances, Emergency Events Relating to Violation of Environmental Legislation**

- 4.3.1 On every instance or circumstance or change of circumstances which may affect the compliance with the recommendations of the EIA Report or the EP, the ET shall be responsible to notify IEC within one working day. The IEC may also identify any instance or circumstance during their routine inspections and audits. Upon receipt of the notification from the ET, or identified by the IEC during inspection and audits, IEC shall discuss with the ET, ER and contractor on the instance and conduct *ad hoc* site inspection where necessary.
- 4.3.2 The notification to EPD, together with the associated IEC Site Inspection Report, if available, will be prepared and be sent to the contractor, ET, ER, DSD and EPD by the end of the next working day upon receive of such notification.
- 4.3.3 Should events relating to violation of environmental legislation, or least having EP liability, is observed, such events will be classified as emergency issues and will be addressed immediately. IEC team member responsible for the identification of the event will immediately report to the IEC. The IEC will immediately determine if the event would contribute to violation of the EP and if the event has no EP liability, then the event will be recorded in the respective IEC Site Inspection Report.
- 4.3.4 Otherwise, if violation of environmental legislation is suspected, respective photo record will be sent to the Contractor, ET and ER immediately for further investigation. DSD and EPD will also be notified by e-mail immediately. Event investigation will be conducted as soon as possible, and an Event Investigation Report will be prepared. The Event Investigation Report will be sent to EPD and DSD directly, with copy to ET, ER, and Contractor for necessary follow-up action..

**4.4 Proper Records Keeping and Report and Information Transfer Mechanism**

- 4.4.1 To achieve an environmental friendly EM&A Programme, letter/facsimile as a communication channel will be avoided as far as possible. E-mail will be the main communication channel to minimise paper printing. All submissions will be delivered by email until formal submission, where hardcopies will be printed in accordance with the specific requirement.
- 4.4.2 Soft copy of all received submissions will be saved under the respective category. The IEC team will then review the document, seeking for professional review / advisory if required, and provide a comment on the report. If no comment is required, a verification letter will be released.
- 4.4.3 The comment will be saved with the received document in the same folder for easy reference. Further updates of the submitted documents will be divided into different folder with date of receipt to avoid confusion.
- 4.4.4 Site Inspection Reports, Event Investigation Report, etc. will also be saved under the folder of respective reporting month.
- 4.4.5 All submitted documents, correspondences, reports, and received reports, information, data, etc will be saved and/or filed according to our ISO-9001:2015 quality system. The documents will be organised under a file system implemented for the project. This filing mechanism will enable the IEC to retrieve necessary information quickly for a specific incident.
- 4.4.6 On request by the EPD, DSD, ET or ER, required information will be extracted and sent to the requested party where appropriate.

Table 4-1 Methodologies on Discharging Duties listed in the Environmental Permit

Actions	Objectives of the Action	Timing / Frequency	Response Turnaround time	EP Condition/EM&A Manual
<b><u>Routine Duties</u></b>				
<b><u>Document Verification / Inspection</u></b>				
Review and audit of EM&A programme	To audit all aspect of the EM&A programme in independent, objective and professional manner.	Throughout the Project period	N/A	EM&A Manual (i)
Submission Verification	Verification of all submissions to EPD pursuant to EM&A Manual requirements, EP Conditions and other submissions	Whenever a submission is received for verification	5 working days (3 working days for Monthly EM&A Report)	EP Conditions 1.9, 2.6(ii), 2.9, 2.12, 2.15, 2.17, 2.18, 3.3, 3.5
Verification of on-site logbook (EP 2.2 (v))	Inspect and acknowledgement of the on-site logbook required under EP Condition 2.2 (v) prepared by ET	Weekly or or when occurrence of an instance or circumstance or change of circumstances, which may affect the compliance with the recommendations of the approved EIA Report and the EP	1 working day	EP Conditions 2.6(iii)
Verification of environmental monitoring data	To check and verify the data collected by the ET	Once a week, or when necessary including event of exceedance, receive of complaints, etc	Not Applicable	EP Conditions 2.6(i) EM&A Manual (ii)&(iii)
Audit the approved EIA Report recommendations and EP requirements	To ensure those EIA recommendation and EP requirements are properly implemented on-site	Through the Project period	1 working day (submission of IEC Site Inspection Report)	EM&A Manual (v)
Review the effectiveness of environmental mitigation measures and environmental performance of the Project	To ensure those EIA recommendation and EP requirements are properly implemented on-site	Throughout the Project period	To be reported in monthly audit report	EM&A Manual (vi)
Verify the environmental acceptability of permanent	To ensure no adverse environmental impact to be arisen	On needed basis	5 working days	EP Conditions 2.6(ii)

Actions	Objectives of the Action	Timing / Frequency	Response Turnaround time	EP Condition/EM&A Manual
and temporary works	by proper implementation of mitigation measures			EM&A Manual (vii)
Allocating adequate resources, including any necessary specialist support, for discharging the duties required in this Permit and the EM&A Manual	To provide adequate manpower to assist IEC to discharge his duties specified in the EP and EM&A Manual	Throughout the Project period	N/A	EP Conditions 2.6(viii)
<i>Compliance with the Event and Action Plan</i>				
Conduct necessary actions specified within the Event and Action Plan in the EM&A Manual and its revisions	To fulfil the tasks required by the EM&A Manual	Whenever an exceedances or other events that triggers the Event and Action Plan	Not Applicable	EP Conditions 3.2(iii) EM&A Manual (x)
Verify investigation results of complaints cases and the effectiveness of corrective measures	To verify the investigation carried out by the ET and the effectiveness of the proposed corrective measures to ensure the complaint cases is properly addressed	Whenever a project related complaint is received	5 working days	EM&A Manual (viii)

Actions	Objectives of the Action	Timing / Frequency	Response Turnaround time	EP Condition/EM&A Manual
<i>Site Inspections and Audits</i>				
Scheduled site inspections and audits	To take part in the routine site inspections and audits and those initiated by ET, ER, DSD, or EPD as necessary	Minimum once per month. Additional site inspections and audits may be required as requested by ET, ER, DSD or EPD, where necessary	1 working day (submission of IEC Site Inspection Report)	EP Conditions 2.6(i), 2.6(vi)
Ad-hoc site inspections and audits	To conduct additional site inspections and audits to supplement the EM&A Programme when necessary	Minimum twice per month. Additional site inspections and audits may be required as requested by ET, ER, DSD or EPD, where necessary	1 working day (submission of IEC Site Inspection Report)	EM&A Manual (iv) EP Conditions 2.6(i), 2.6(vi)
<i>Attend Meetings</i>				
Site environmental meetings	To provide opinion and discuss any issues raised within the meeting	Whenever a meeting is necessary	Not Applicable	N/A
Liaison meeting with DSD, ET, RE, EPD and the contractor	To provide opinion and discuss any issues raised within the meeting	Whenever a meeting is necessary	Not Applicable	EP Condition 2.6(vi)
<i>Offer objective and professional advice on environmental issues</i>				
Offer objective and professional advice on environmental issues	To offer objective and professional advice on environmental issues, with the support of relevant information, documents and records as appropriate	When requested	Not Applicable	EP Condition 2.6(vii)

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Actions	Objectives of the Action	Timing / Frequency	Response Turnaround time	EP Condition/EM&A Manual
<i>Report to DSD and EPD</i>				
Monthly Audit Report	To provide a summary on the actions conducted by the IEC and also provide observation and recommendations on the EM&A works performed by the ET	Once per month	Not Applicable	EP Condition 2.6(v) EM&A Manual (ix)



Actions	Objectives of the Action	Timing / Frequency	Response Turnaround time	EP Condition/EM&A Manual
<p><b><i>Handle Each and Every Change of Circumstances, Emergency Events Relating to Violation of Environmental Legislation</i></b>                      Inform EPD on each changes of circumstances, emergency events relating to violation of environmental legislation</p>	<p>To inform EPD on the changes of circumstances, emergency events relating to violation of environmental legislation</p>	<p>Whenever a change of circumstances, emergency events relating to violation of environmental legislation is received or observed</p>	<p>One working day after notified by ET, or when identified by IEC</p>	<p>EP Conditions 2.5(ii), 2.6(iv)</p>
<p>Discussion with ET, ER and contractor</p>	<p>To obtain more information related to the changes of circumstances, emergency events relating to violation of environmental legislation</p>	<p>Whenever a change of circumstances, emergency events relating to violation of environmental legislation is received or observed</p>	<p>One working day after notified by ET, or when identified by IEC</p>	<p>EP Condition 2.5(ii)</p>
<p>Conduct Ad-Hoc site inspection at the works site reported</p>	<p>To obtain more information related to the changes of circumstances, emergency events relating to violation of environmental legislation</p>	<p>When necessary</p>	<p>1 working day (submission of IEC Site Inspection Report)</p>	<p>EP Condition 2.5(ii)</p>

Actions	Objectives of the Action	Timing / Frequency	Response Turnaround time	EP Condition/EM&A Manual
<b><u>Proper Records Keeping and Report and Information Transfer Mechanism</u></b>				
Saves soft copy of files under the respective category	To record all received and released documentations for the Project on site	Whenever a document is received or released	Not Applicable	EP Condition 2.5(iii)
Retrieve relevant information and send to EPD via e-mail	To provide information to EPD upon request	Whenever a request was received from EPD	3 working days	EP Condition 2.5(iii)

**5. REVIEW OF THE REPORTING MECHANISM**

- 5.1.1 When considered appropriate by the IEC or EPD, the reporting mechanism would be reviewed and updated as necessary. The IEC shall review and update the reporting mechanism in consultation with the EPD, to suit the changing project situation.
- 5.1.2 As such, the reporting mechanism detailed in this proposal shall be reviewed regularly upon commencement of construction works. Should the mechanism shall be optimised, the IEC shall propose the revision in the Monthly Audit Report to notify DSD and EPD. This proposal shall then be updated and delivered to DSD and EPD in the next reporting month for acceptance.

*Drainage Services Department*

Agreement No. CM 14/2018

Independent Environmental Checker Services for Expansion of Sha Tau Kok Sewage  
Treatment Works

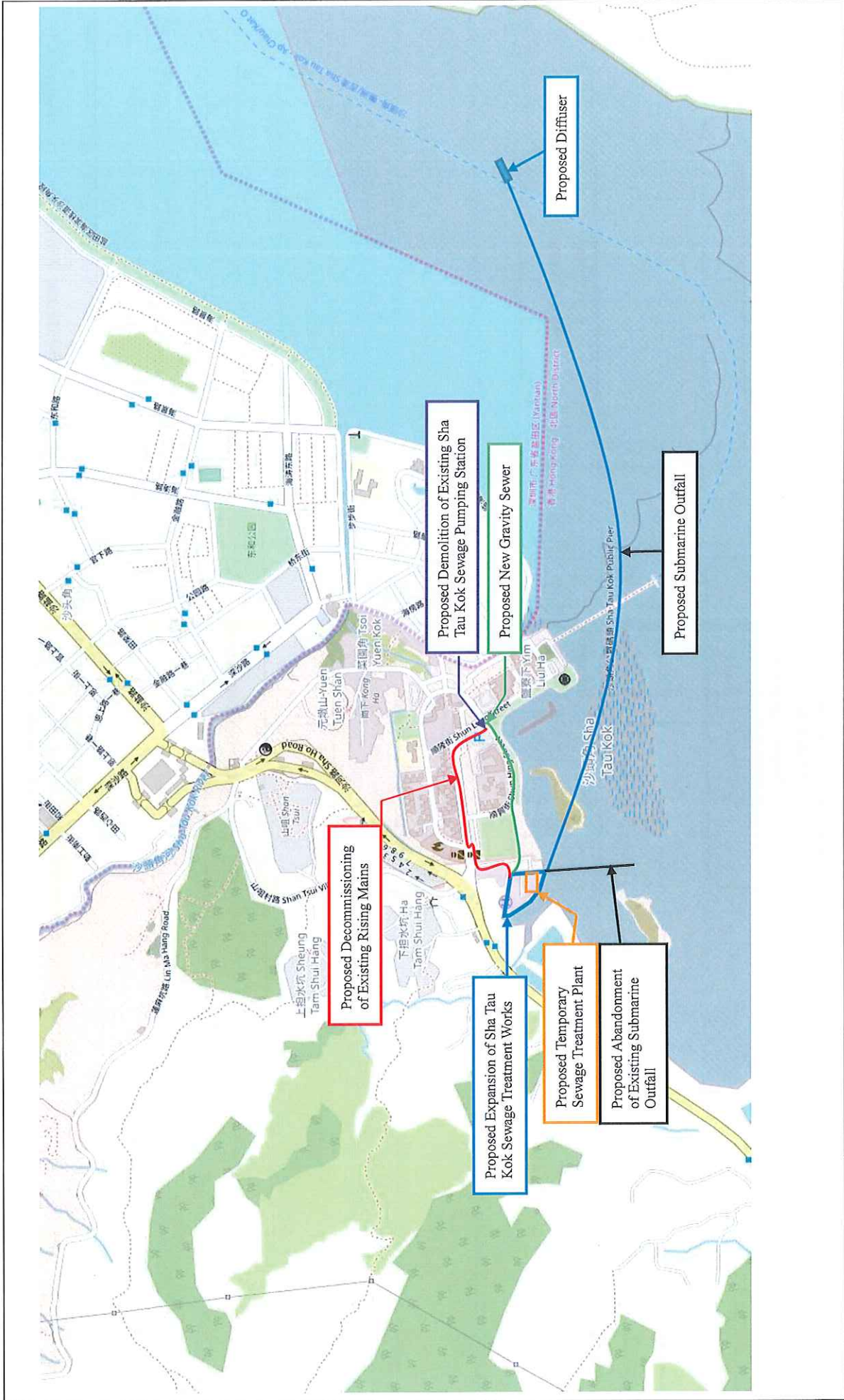
Proposal on Reporting Mechanism

**ANewR**

March 2020

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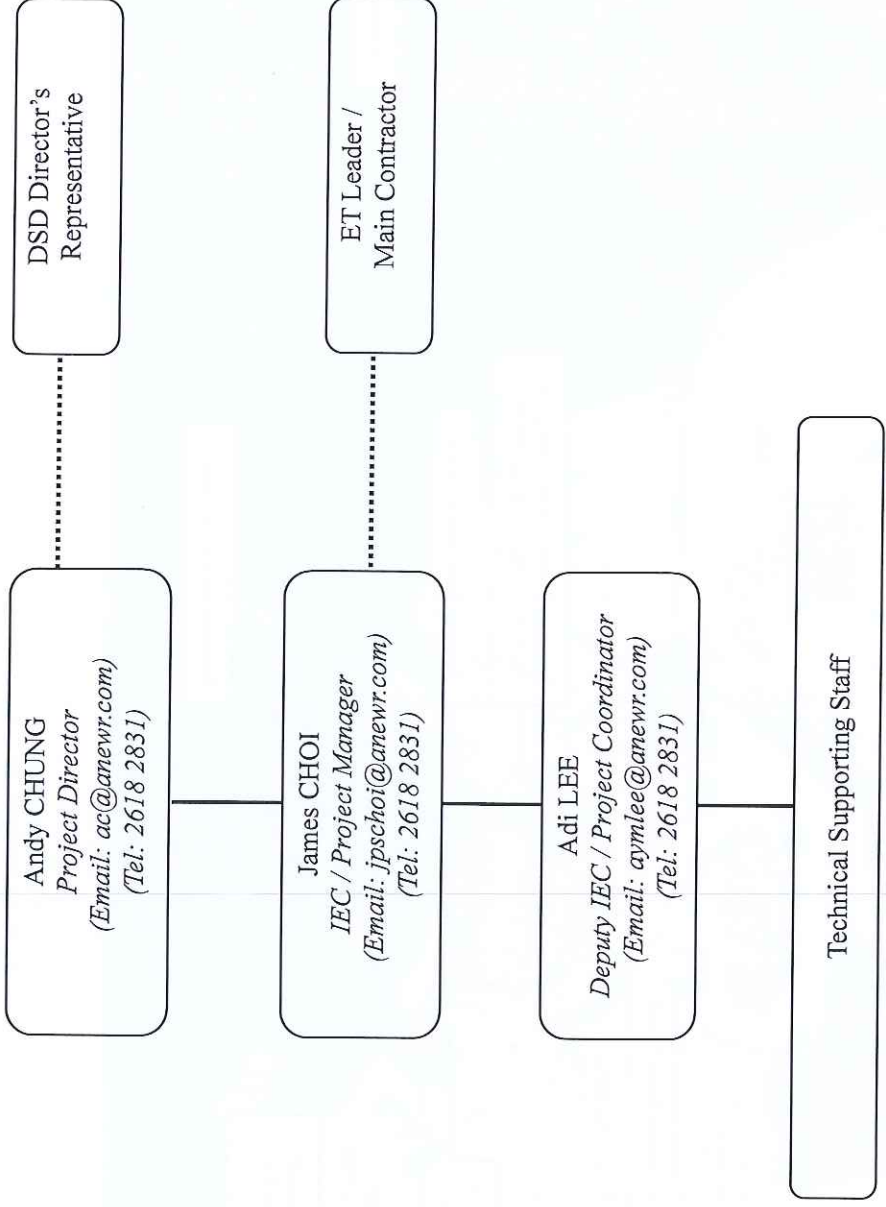
## FIGURES



**Agreement No. CM 14/2018**  
**Independent Environmental Checker Services for Expansion of Sha Tau Kok Sewage Treatment Works**  
**Site Location Plan**

**Figure 1-1**





Agreement No. CM 14/2018  
 Independent Environmental Checker Services for Expansion of Sha Tau Kok Sewage Treatment Works  
 Organisation of the ANewR Team

Figure 3-1

*Drainage Services Department*

Agreement No. CM 14/2018

Independent Environmental Checker Services for Expansion of Sha Tau Kok Sewage  
Treatment Works

Proposal on Reporting Mechanism

**ANewR**

March 2020

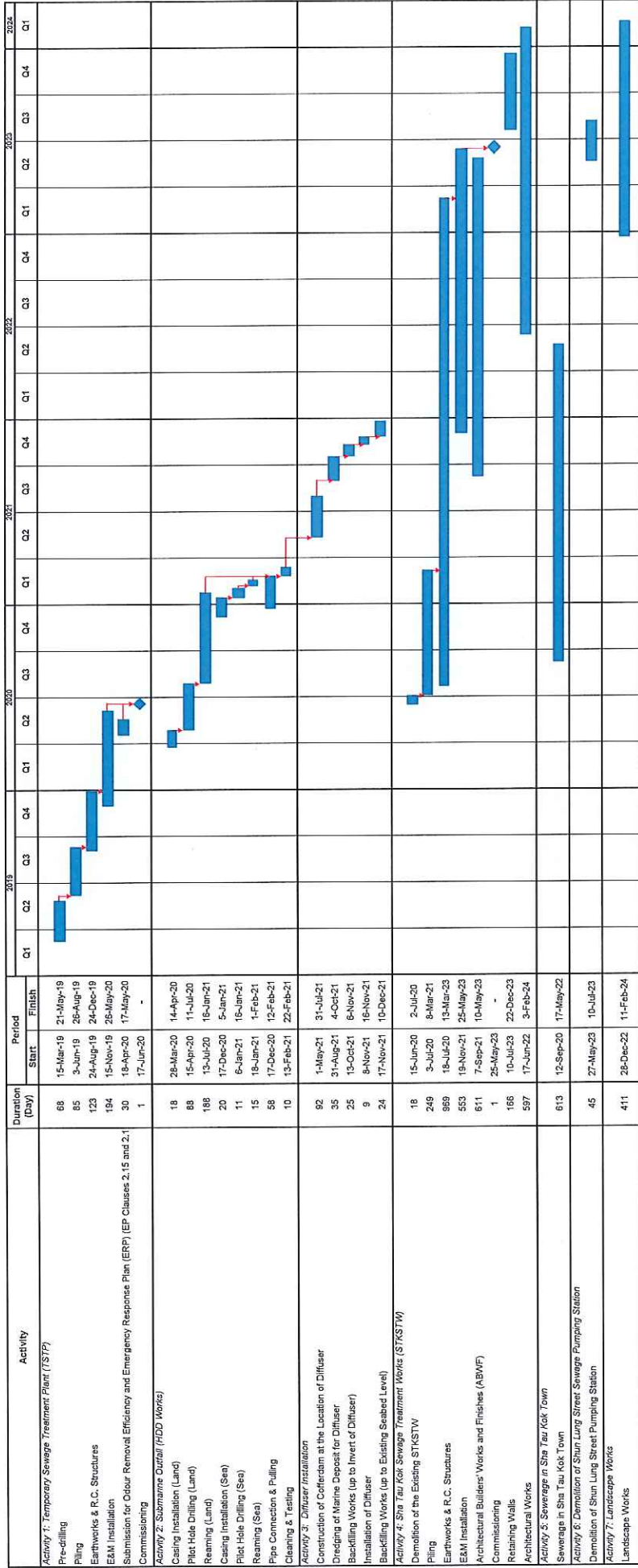
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## **APPENDIX A**

### **CONSTRUCTION PROGRAMME**

Contract No. DC/2018/03  
Expansion of Sha Tau Kok Sewage Treatment Works Phase 1 and Village Sewerage in Tong To  
Construction Programme (Rev.3)

Updated as of: 10 Feb 2020



Notes:-  
1. Red narrow represents critical path.  
2. The programme is based on the subcontractor's latest programme and latest accepted Contractor's programme.