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**Proposal on the Reporting Mechanism
for
CEDD Contract No. ND/2018/01 Site Formation and
Infrastructure Works for Police Facilities in Kong Nga Po.**

Client: Civil Engineering and Development Department

Project: IEC Services for Police Facilities in Kong Nga Po



REVISION HISTORY

REV.	DESCRIPTION OF MODIFICATION	DATE
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CONTENTS

	Page
1. Introduction.....	1
1.1. Background.....	1
1.2. Project Description	1
1.3. Purpose of the Proposal	2
2. Duties of the IEC	3
2.1. Overview.....	3
3. Organisation of the IEC and its Supporting Team	4
3.1. Organisation Chart.....	4
3.2. Duties of Key Staff and Specialist Team	4
4. Proposed Reporting Mechanism	6
4.1. Overview.....	6
4.2. Discharge of Routine Duties	7
4.2.1. Document and Data Verification.....	7
4.2.2. Compliance with the Event and Action Plan	11
4.2.3. Site Inspection and Audit	13
4.2.4. Attend Meetings	14
4.2.5. Offer Objective and Professional Advice on Environmental Issue.....	14
4.2.6. Report to the CEDD and DEP.....	15
4.3. Handle Each and Every Change of Circumstances, Emergency Events Relating to Violation of Environmental Legislation	16
4.4. Proper Records Keeping and Report and Information Transfer Mechanism	18
5. Review of the Reporting Mechanism	24



1. INTRODUCTION

1.1. BACKGROUND

1.1.1) Acuity Sustainability Consulting Limited (ASCL) was commissioned by Civil Engineering and Development Department (CEDD) on 27 November 2019 to undertake the Independent Environmental Checker (IEC) services as required and/or implied, both explicitly and implicitly, in the Environmental Permit (EP), Environmental Impact Assessment Report (EIA Report) and Environmental Monitoring and Audit Manual (EM&A Manual) for CEDD Contact No. ND/2018/01 Site Formation and Infrastructure for Police Facilities in Kong Nga Po.

1.2. PROJECT DESCRIPTION

1.2.1) The Project consists of site formation works and building works for the co-location of various police facilities in the Project site at Kong Nga Po as well as road improvement works to a section of the existing Kong Nga Po Road between the police facilities and Man Kam To Road. The police facilities include:

- Lo Wu Firing Range (LWFR) to be relocated from Lo Wu;
- Ma Tso Lung Firing Range (MTLFR) to be relocated from Ma Tso Lung;
- Weapons Training Facilities (WTF) and Police Driving and Traffic Training Facilities (PD&TTF) to be relocated from Fan Garden;
- Helipad to be relocated from Lo Wu;
- A Proposed Police Training Facility (PTF); and
- A new internal access road network with underpass within the Project site.

1.2.2) The improvement works to Kong Nga Po Road between the police facilities and Man Kam To Road includes roadworks, viaduct of less than 100m between abutments, and associated works such as slope works and retaining walls.

1.2.3) In addition to the above, associated supporting infrastructure and utilities including an underground stormwater storage tank, sewage pumping station, petrol / diesel filling station, a multi-storey training complex associated with the PD&TTF, and other ancillary facilities will also be provided.



1.3. PURPOSE OF THE PROPOSAL

- 1.3.1) Pursuant to the Environmental Permit (EP) with permit number EP-510/2016 Condition 2.7 of the Project, the purpose of this Proposal on the Reporting Mechanism (the Proposal) is to describe the approaches for the Independent Checker (IEC) and the supporting team to report to the Director of Environmental Protection on:
- a. how to discharge all the IEC duties specified under the Environmental Monitoring and Audit (EM&A) programme and this Permit by considering the construction activities and programme of the Project;
 - b. how to handle each and every change of circumstances, emergency events relating to violation of environmental legislation (such as illegal dumping and landfilling) or non-compliance (including suspects of non-compliance) with the recommendations (such as construction methods, mitigation measures, and environmental standards) of the approved Environmental Impact Assessment (EIA) Report (Register No. AEIAR-201/2016), the EM&A Manual and this Permit, which might affect the monitoring or control of adverse environmental impacts from the Project; and
 - c. how to keep proper records in order to respond to questions and enquires from the Director on the EM&A programme and duties discharged by the IEC.



2. DUTIES OF THE IEC

2.1. OVERVIEW

2.1.1) The IEC shall be responsible for duties defined in the EM&A Manual and this Permit, including but not limited to the following:

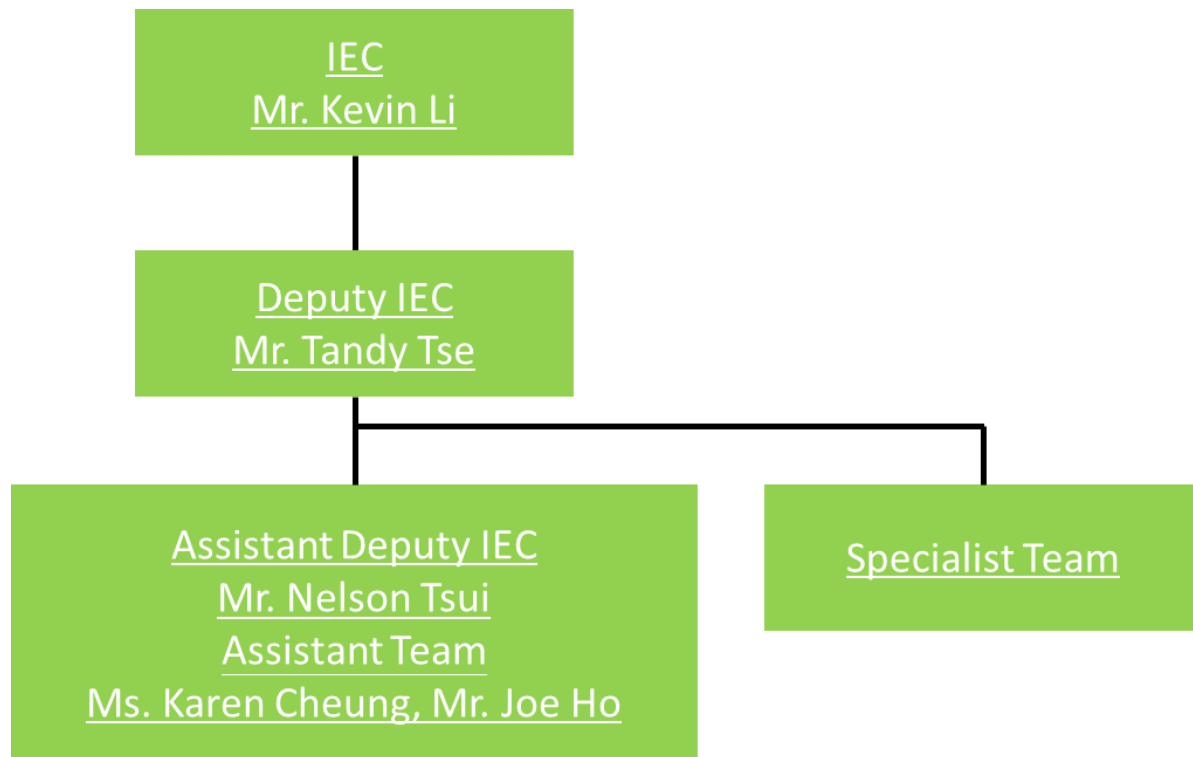
- a. To audit the overall EM&A performance, including the implementation of all environmental mitigation measures and monitoring activities on site.
- b. To verify the environmental acceptability of permanent and temporary works, relevant design plans and submissions required in the EM&A Manual and under the EP.
- c. To verify the logbook(s) mentioned in Condition 2.2(v) of the EP.
- d. To notify the Director by fax or email, within one working day of receipt of notification from the ET Leader, or identification by the IEC and his team, of each and every change of circumstances and emergency events mentioned in Condition 2.7(ii) of the Permit. Notification by the Permit Holder is the same as notification by the IEC for the purpose of this EP Condition.
- e. To accompany the Director in carrying out site inspections and attending meetings when requested.
- f. To offer objective and professional advice on environmental issues, when requested, and to respond to questions and enquires from the Director on the EM&A programme and duties discharged by the IEC, with the support of relevant information, documents and records as appropriate.
- g. To allocate adequate resources, including any necessary specialist supports having regard to the specialists in the ET under Conditions 2.4 to 2.5 of the EP for discharging the duties required in the EP and the EM&A Manual.



3. ORGANIZATION OF THE IEC AND ITS SUPPORTING TEAM

3.1. ORGANIZATION CHART

3.1.1) The organization chart is presented in **Figure 3-1**.



3.2. DUTIES OF KEY STAFF AND SPECIALIST TEAM

3.2.1) Condition 2.6 of the EP required that a single full-time on-site IEC with a supporting team shall be deployed for the project. Full time on-site IEC is defined as the IEC shall be at the project site during office hours. Project site refers to all areas that host operations related to the project, including construction works sites, meetings with stake holders related to the project, or other works sites outside the project area where applicable, e.g. sensitive receivers, monitoring locations, or off site works area, e.g. a public sorting facility, a waste treatment facility, or a casting yard, that are operated by the contractor.



- 3.2.2) As such, during the construction works, an IEC shall maintain his presence at the site. In case the IEC cannot attend the site due to sickness, annual leave, etc., the deputy IEC shall inform the EPD, CEDD, ET and RE as soon as possible.
- 3.2.3) During IEC absence, the deputy IEC shall take up his role and will carry out all duties of the IEC, including sign off documents on his behalf.
- 3.2.4) Key staffs and specialist team of the project team are presented below:
- (i) **IEC** will be responsible for day-to-day management and conduct the duties of the IEC as stipulated in Section 2.0. He will be the main coordinator between various parties of the project, including the CEDD, the EPD, relevant governmental departments, the ET, the Contractors, other Government Departments and other related stakeholders. He will also liaise with the support team to provide necessary support when necessary.
 - (ii) **Deputy IEC** will be stationed on-site full-time and 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.
 - (iii) **Assistant Deputy IEC** will act as reserve in case both the IEC and Deputy IEC are not available on site. The assistant deputy IEC will conduct all tasks assigned to the IEC during the period.
 - (iv) **Assistant Team** will conduct site inspections, independent environmental data measurements and other document review, preparation of the audit reports tasks when necessary.
 - (v) **Specialist Team** will provide specialist support for this Project to address key environmental aspects (including air quality, noise, water, ecology, landscape and visual, waste management, cultural heritage and land contamination) and / or engineering aspects of the Project.



4. PROPOSED REPORTING MECHANISM

4.1. OVERVIEW

4.1.1) The reporting mechanism for the Project is proposed in this section. The duties of the IEC for this Project under the proposed reporting mechanism can be summarized in the following aspects:

- a. To provide proactive advice to the ER and the Project Proponent on EM&A matters related to the Project;
- b. To review and verify the monitoring data and all submissions in connection with the EP and EM&A Manual submitted by the ET;
- c. To arrange and conduct regular, at least monthly site inspections of the works during the construction phase, and to carry out ad hoc inspections if significant environmental problems are identified;
- d. To check compliance with the agreed Event / Action Plan in the event of any exceedance;
- e. To check compliance with the procedures for carrying out complaint investigation;
- f. To check the effectiveness of corrective measures;
- g. To feedback audit results to the ET by signing off relevant EM&A proforma;
- h. To check that mitigation measures are effectively implemented;
- i. To report the works conducted, and the findings, recommendations and improvements of the site inspections, after reviewing ET's and Contractor's works, to the ER and the Project Proponent on a monthly basis;
- j. To verify the investigation result of the environmental complaint cases and the effectiveness of corrective measures;
- k. To verify monthly EM&A reports that has been certified by ET leader; and
- l. To audit EIA recommendations and requirements against the status of implementation of environmental mitigation measures on site.

4.1.2) The detailed methodology on discharging the duties mentioned above are given in Section 4.2 to Section 4.4.



4.2. DISCHARGE OF ROUTINE DUTIES

As discussed in Section 4.1, the duties of IEC can be divided into six main categories. The proposed routine to discharge these duties will be discussed as follows.

4.2.1. DOCUMENT AND DATA VERIFICATION

4.2.1.1) The IEC shall allocate adequate resources, including any necessary specialist supports having regard to the specialists in the Environmental Team (ET), and audit the overall EM&A performance, including the implementation of all environmental mitigation measures and monitoring activities on site in connection with the EP and EM&A Manual undertaken by the ET. The relevant EP submissions or any variation of the submissions under the requirements of the EP including EM&A report, shall be reviewed and verified by our IEC team before submitting to the EPD. Table 4.1 has outlined the list of environmental submissions for review and verification by IEC before, during and after construction phases and during operational phase:

Table 4.1 – List of Environmental Submissions for Review and/or Verification by Our IEC

EP Submission Items	Description	Reference
Qualifications for the appointment of Ecologist	The Permit Holder shall, no later than 3 months before the commencement of the construction of the Project, appoint Qualified Ecologist(s) to form part of the ET to carry out work relating to ecological aspects. The qualification and experience of the Qualified Ecologist(s) shall be certified by the ET Leader and verified by the IEC.	EP Condition 2.4
Qualifications and Experience for the employment of one Registered Landscape Architect (RLA)	The Permit Holder shall, no later than 1 month before the commencement of the construction of the Project, appoint a Registered Landscape Architect to form part of the ET to carry out work relating to landscape aspects. The qualification and experience of the Registered Landscape Architect shall be certified by the ET Leader and verified by the IEC.	EP Condition 2.5
Management Organization	The Permit Holder shall, no later than 1 month before the commencement of construction of the	EP Condition 2.11



EP Submission Items	Description	Reference
	Project, submit the Management organization of the main construction companies, the ET and the IEC and his supporting team.	
Construction Works Schedule and Location Plans	The Permit Holder shall, no later than 1 month before the commencement of construction of the Project, submit a detailed phasing programme and location plan for all construction works.	EP Condition 2.12
Vegetation Survey Report	The Permit Holder shall, no later than 3 months before start of site clearance, submit a vegetation Survey Report including details on methodology and survey results of flora species of conservation interest, and no later than 1 month before commencement of plant transplantation, submit a transplantation proposal. The report shall be prepared by the qualified ecologist(s), certified by the ETL and verified by the IEC .	EP Condition 2.13 & 2.14
Baseline Report for Golden-headed Cisticola (GHC)	The Permit Holder shall, no later than 1 month before start of site clearance, submit a baseline survey report for GHC covering the remote grasslands in the ecological assessment area with appropriate mitigation measures to reduce impacts.	EP Condition 2.15
Revised Layout Plan of Kong Nga Po Road	The Permit Holder shall, no later than 1 month before the commencement of construction works for KNP Road, submit a revised layout plan with an explanatory statement detailing the works boundaries, the works areas, vertical and horizontal alignments of the roads and other nearby major buildings, structures and facilities; and the locations of individuals of <i>Keteleeria fortunei</i> and other species of conservation interest.	EP Condition 2.16
Layout Plan for Permeable Paving	The Permit Holder shall, no later than 1 month before the commencement of construction works of the Project, submit a layout for permeable pavings plan with details of paving materials and justifications with supporting evidence for any area using non-permeable paving.	EP Condition 2.17
Landscape and Visual Mitigation Plan(s)	The Permit Holder shall, no later than 1 month before the commencement of construction of	EP Condition 2.18 & 2.19



EP Submission Items	Description	Reference
	relevant part(s) of the Project, submit a plan include the locations, size number and species of planting, design details, implementation programme, maintenance and management schedules of the landscape and visual mitigation measures recommended in the EIA report (AEIAR-201/2016) and drawings showing the landscape and visual mitigation measures of the Project. The plan shall include details of the compensatory planting proposal for trees affected by the Project and also specify details of the plant species as larval food plants of butterflies as required under EP condition 2.21. The plan shall be certified by the Registered Landscape Architect, certified by the ETL and verified by the IEC.	
Plan for Perimeter Walls / Boundary Walls at Project Site and Side Walls of Firing Ranges	The Permit Holder shall, no later than 1 month before the commencement of construction of relevant part(s) of the Project, submit a plan include but not limited to the design, locations, height and materials of the perimeter wall / boundary wall at the Project site and side walls at re-provisioned Ma Tso Lung Firing Range. The plan shall be certified by the ETL and verified by the IEC.	EP Condition 2.20
Helicopter Flight Plan	The Permit Holder shall no later than 1 month before the commencement of operation of the Helipad, submit a flight plan showing the flight paths and approach & take-off angles for the helicopter. The Plan shall be certified by the ETL and verified by the IEC.	EP Condition 2.23
Baseline Monitoring Report	The Permit Holder shall submit relevant Baseline Monitoring Report at least 1 month before the commencement of the construction of the Project. The submission shall be certified by the ETL and verified by the IEC. Report in HTML format shall be submitted at the same time as the hard copies.	EP Condition 3.4 & 4.1



EP Submission Items	Description	Reference
Monthly EM&A Report	The Permit Holder shall submit copy of Monthly EM&A Report within 2 weeks after the end of the reporting month. The submission shall be certified by the ETL and verified by the IEC . Report in HTML format shall be submitted at the same time as the hard copies.	EP Condition 3.5 & 4.1
Dedicated Internet Website	The Permit Holder shall at least 2 weeks before the commencement of construction of the Project, set up the dedicated internet website and notify the Director.	EP Condition 4.2

- 4.2.1.2) Response for each document submitted shall be completed within five working days upon receipt. Monthly EM&A Report shall be commented or verified within three working days. Verification letters will be printed for signature. Signed letter will be saved and recorded on site for record. On-site logbook to be updated and kept by ET as required by the EP Condition 2.3 shall be inspected by our IEC team at least once per month. 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.
- 4.2.1.3) Environmental monitoring data will be audited by the IEC at least once per month, additional/surprise audits may be conducted where necessary. The IEC will conduct one random 1- hour Total Suspended Particulate (TSP) and noise measurement during routine environmental monitoring to conduct independent environmental testing on measured TSP and noise levels to verify the monitoring results collected by the ET. Our IEC team will verify the monitoring equipment used by the ET team on site are well calibrated and maintained with valid calibration records according to the EM&A Manual.
- 4.2.1.4) The findings of each independent/surprise audit on environmental monitoring data will be incorporated into our IEC observation report as shown in Appendix B which will be delivered to the ET team, Engineering Representative (ER), the Main Contractor, CEDD and EPD for their records. If there are any deficiencies from and/or non-compliance with the monitoring requirements of the EPD approved EM&A Manual, our IEC team will issue a



request for follow-up action as well as the observation report to the ET Team for their immediate responses and actions for rectification.

4.2.2. COMPLIANCE WITH THE EVENT AND ACTION PLAN

- 4.2.2.1) Before commencing baseline and impact dust and noise monitoring, the ET should inform our IEC of the baseline and impact monitoring programme such that our IEC conducts on-site audits to ensure the requirements of environmental monitoring works in full compliance with the EPD approved EM&A Manual and keep accuracy of the baseline and impact monitoring results.
- 4.2.2.2) Baseline monitoring results form the basis for determining the air quality and noise criteria for the impact monitoring. The ET should compare the impact monitoring results with these criteria to set up the Action and Limit (AL) Levels to be used. The AL Levels should be checked and agreed by our IEC and submitted to EPD for approval prior to impact monitoring commencement.
- 4.2.2.3) Exceedance on monitoring results, including noise, construction dust, etc, will be recorded by the ET, and ET shall inform IEC, contractor and ER in accordance with the updated EM&A Manual. Upon receive 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.
- 4.2.2.4) Where necessary, IEC shall discuss with relevant parties and specialists, including Contractor, ET, RE, and the specialist team as discussed in Section 3.0, before verifying the mitigation measures. Ad-hoc site inspections shall be arranged once per month to ensure the mitigation measures proposed, including additional watering, maintenance of noise mitigation, etc, have been properly implemented and exceedances have been mitigated.
- 4.2.2.5) Verification of monitoring data will be conducted whenever an exceedance has been recorded. Further ad-hoc inspections shall be arranged where necessary.



- 4.2.2.6) ET shall conduct investigation and submit an Investigation Report on each exceedance event, IEC will verify the investigation report and include any additional proposal or recommendations as necessary before the submission to EPD by ET.
- 4.2.2.7) Environmental complaints are in normal case be directed to EPD, ER, Contractor or ET and responded. The ET shall undertake the complaint investigation to check whether it would be related to the project or not. Our IEC will monitor and ensure that the Main Contractor and the ET team strictly follow the environmental complaint flow diagram and reporting channel in handling of an environmental complaint in accordance with Section 11.3 of the EM&A Manual and in full compliance with the procedures for carrying out complaint investigation.
- 4.2.2.8) Our IEC shall check and verify the root causes of the complaint and effectiveness of relevant mitigation measures and controls undertaken by the Main Contractor. Our IEC shall review each ET's investigation reports/incident report which should contain details of the complaint, results of the investigation, subsequent actions taken to address the complaint and updated situation including the effectiveness of the remedial measures, any supports by regular and additional monitoring results. Our IEC keeps informed of CEDD and EPD the statues of follow-up actions on each environmental complaint.
- 4.2.2.9) In special cases where the complaints were received by IEC directly, IEC shall forward the complaint to the Main Contractor, ET and ER such that they will conduct investigation as specified in the plan. The complaint will also be at the same time forwarded to CEDD and EPD for their record.



4.2.3. SITE INSPECTION AND AUDIT

- 4.2.3.1) Site inspections and audits will either be a scheduled one, or an ad-hoc one. Scheduled site inspections are at least monthly site inspections and audits arranged by ET, ER, CEDD or EPD during the construction phase. For example, Site Safety Management Committee (SSMC) shall hold a joint site inspection once per month. IEC Team will assign staff to conduct the scheduled site inspections and audits where necessary.
- 4.2.3.2) Ad-hoc site inspections and audits may be arranged by our IEC team 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 Main 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.
- 4.2.3.3) After site inspections and audits, an IEC Site Inspection Report will be generated. A sample IEC site inspection report is shown in **Appendix A**. The report shall cover all relevant information including the date and time of the inspections, works area inspected, respective contracts, the implementation status of the mitigation measures (e.g. waste management, dust control, noise mitigation, ecological protection, etc), any observation and/or deficiency (e.g. tire track outside the construction site, oil leakage, deviation from the mitigation measures 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 CEDD and EPD and sent to the Main Contractor, ET, and ER for their records and/or follow-up actions.
- 4.2.3.4) Site inspection and audits will be conducted at least once a month. Additional audits will be conducted when necessary. An IEC Site Inspection Report will be submitted to CEDD and EPD and sent to the Contractor, ET, and ER for their record for each site inspection and audit conducted before the end of the next working day.



4.2.4. ATTEND MEETINGS

- 4.2.4.1) Meetings to be attended by IEC would include the scheduled Site Safety and Environmental Management Committee (SSEMC) meetings, liaison meetings with CEDD, ET, ER and Contractors regarding to the EM&A programme implementation, liaison meetings with stakeholders and other Government Departments, etc.
- 4.2.4.2) Once the schedule of the meeting is proposed, the IEC will discuss with the host and other parties to understand the purpose of the meeting, and the role of the IEC in the meetings. It is expected that IEC can take proactive role to share advice with the Main Contractor, ER, ET and CEDD on EM&A matters related to the Project and discuss amongst relevant parties on the proposed and potential remedial measures/actions if exceedance of Action and Limit Levels occurs so as to ensure effective implementation of the mitigation measures to enhance the acceptability of the project's overall environmental performance.
- 4.2.4.3) When necessary, the IEC will collect necessary information and prepare a presentation for each meeting. Meeting minutes will not be prepared by IEC. During special periods, e.g. during initial stage, additional meetings with EPD may be required. Where necessary, increased frequency of regular meetings with EPD will be conducted.

4.2.5. OFFER OBJECTIVE AND PROFESSIONAL ADVICE ON ENVIRONMENTAL ISSUE

- 4.2.5.1) Our IEC Team will take a proactive approach when offering advices on environmental issues. During the routine inspection and independent environmental data measurements as discussed in Section 4.2.6, the IEC Team may identify environmental issues or identify potential risks, for example site formation (e.g. excavation) and road improvement works to be commenced that may lead to environmental issues (e.g. noise, dust impact) and ecological disturbances along Kong Nga Po (KNP) Road onto individuals of *Keteleeria fortunei* and other species of conservation interest.



- 4.2.5.2) The IEC Team shall then evaluate the potential risks of the issues, including the likeliness of exceedance, additional nuisance, potential breaching of environmental legislation etc, 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 CEDD and the EPD by the end of the next working day.
- 4.2.5.3) The review will be conducted throughout the EM&A Programme. CEDD, EPD and Agriculture, Fisheries and Conservation Department (AFCD) will be notified whenever any advice has been proposed. Formal conclusion or suggestion, e.g. propose site scheduling of works to avoid cumulative impacts, use of additional mitigation measures, or license application including variation of the EP, will be presented in the IEC Monthly Audit Reports.

4.2.6. REPORT TO THE CEDD AND DEP

- 4.2.6.1) Routine submission including our IEC Monthly Audit and Progress Report will be submitted to CEDD on a monthly basis. The Report will be prepared in accordance with the template agreed with CEDD. The monthly reports will be copied to EPD as a routine reporting mechanism.
- 4.2.6.2) During the reporting month, IEC will conduct independent environmental data measurements as discussed in Section 4.2.1. The results will be compared against the results obtained by the ET. The comparison will be sent to CEDD and DEP via the MA Report.
- 4.2.6.3) 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.
- 4.2.6.4) In addition, IEC shall in constantly contact with CEDD and EPD on any circumstances or observations. As such informal communications would be achieved whenever convenient, especially when any circumstances have been suspected.

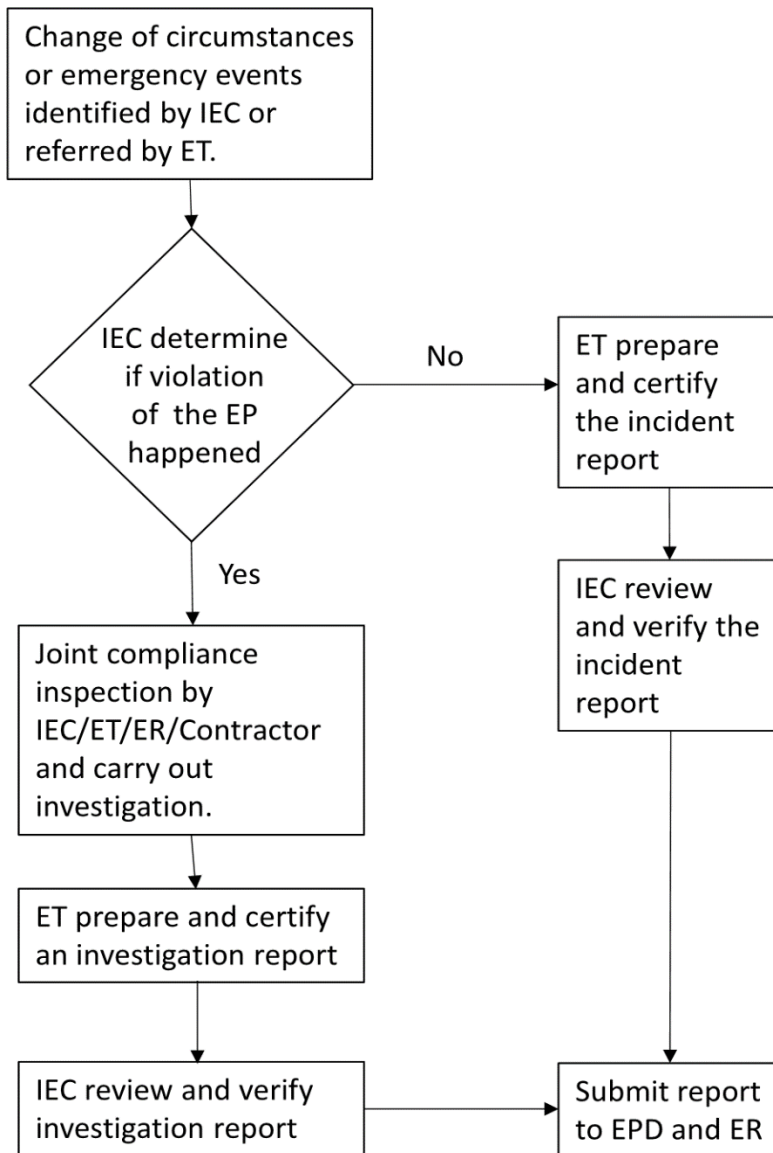


4.3. HANDLE EACH AND EVERY CHANGE OF CIRCUMSTANCES, EMERGENCY EVENTS RELATING TO VIOLATION OF ENVIRONMENTAL LEGISLATION

- 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, ET shall be responsible to notify IEC within one working day. IEC may also identify any instance or circumstance during their routine inspections and audits. Upon receipt of notification from ET, or identified by the IEC during inspection and audits, IEC shall discuss with ET, ER and contractor on the instance and conduct site inspection where necessary.
- 4.3.2) The notification to EPD, together with the associated IEC Site Inspection Report, if available, will be generated and be sent to the Contractor, ET, ER, CEDD and EPD by the end of the next working day upon receipt 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) If violation of environmental legislation is suspected, respective photo record will be sent to the Contractor, ET and ER immediately for further investigation. CEDD 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 delivered to ET, ER, and the Main Contractor for review, and subsequently submit to CEDD and EPD. Figure 4.1 shows the event flow chart of handling on change of circumstances, emergency events relating to violation of environmental legislation.



Figure 4.1: Flow Chart of handling on change of circumstances, emergency events relating to violation of environmental legislation.





4.4. PROPER RECORDS KEEPING AND REPORT AND INFORMATION TRANSFER MECHANISM

- 4.4.1) To achieve an environmental-friendly EM&A Programme, facsimile as a communication channel will be avoided as far as possible. E-mail will be the main communication channel to minimize 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, and the received document will be logged under the document log file and actions required, including review, comment, verify, record only, will be assigned. 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 will be divided into different folder to avoid confusion.
- 4.4.4) A document index log will also be created and the respective receive date, action required, and response date will be recorded for all documents received from the ET, the Main Contractor, or other parties. This will allow the IEC team to quickly review if any response to submission was outstanding and required immediately action.
- 4.4.5) Site audit reports and monitoring data obtained from site inspections, independent environmental data measurements will also be saved under the folder of respective reporting month.
- 4.4.6) All submitted documents, correspondences, reports, and received reports, information, data, etc will be saved on a computer located on-site. The documents will be organized under a file system implemented for the project. This filing mechanism will enable the IEC to retrieve necessary information quickly for a specific incident.
- 4.4.7) On request by EPD, CEDD, ET or ER, required information will be extracted and sent to the requested party where appropriate. The following Table 4.2 summarizes the IEC duties, action and response times for easy reference.



Table4.2: IEC duties, Action and Response Time.

Actions	Objectives of the Action	Timing / Frequency	Response Turnaround time	EP Condition
Routine Duties				
<i>Document Verification / Inspection</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)	1.9, 2.8, 3.2, 3.4, 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	At least once per month, 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 (AEIAR- 201/2016) and the EP	1 working day	2.8
Checking of other data (waste flow table, site inspection checklists, etc.)	Inspect and verify all data collected by ET and Contractor during the Project progress	At least once per month, or whenever the data was received from respective parties	5 working days	2.8



Actions	Objectives of the Action	Timing / Frequency	Response Turnaround time	EP Condition
Verification of environmental monitoring data	To verify the data collected by ET through independent environmental monitoring and verification	At least once per month, or when necessary including event of exceedance, receive of complaints, etc.	2 working days	2.8
<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	1 working day	2.8
<i>Site Inspections and Audits</i>				
Scheduled site inspections and audits	To take part in the routine site inspections and audits including Site Safety and Environmental Management Committee (SSEMC), and those initiated by ET, ER, CEDD, or EPD	Minimum once per month. Additional site inspections and audits may be required as requested by ET, ER, CEDD or EPD, where necessary	1 working day (submission of IEC Site Inspection Report)	2.8



Actions	Objectives of the Action	Timing / Frequency	Response Turnaround time	EP Condition
Ad-hoc site inspections and audits	To conduct additional site inspections and audits to supplement the EM&A Programme when necessary	Once per month. Additional site inspections and audits may be required as requested by ET, ER, CEDD or EPD, where necessary	1 working day (submission of IEC Site Inspection Report)	2.8
Any site inspection initiated by the Director of EPD	To conduct additional site inspections and audits with the Director of EPD	Upon requested by the Director of EPD	1 working day (submission of IEC Site Inspection Report)	2.8
<u>Attend Meetings</u>				
Attend SSEMC meetings, liaison meetings, and other meetings	To provide opinion and discuss any issues raised within the meeting	Whenever a meeting is necessary is arranged	Not Applicable	N/A
Attend meetings with the Director of EPD	To provide opinion and discuss any issues raised within the meeting	Whenever a meeting is necessary is arranged	Not Applicable	2.8
<u>Offer objective and professional advice on environmental issues</u>				
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	2.8
<u>Report to the CEDD and the DEP</u>				



Actions	Objectives of the Action	Timing / Frequency	Response Turnaround time	EP Condition
Monthly Audit and Progress 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	N/A
<i>Handle Each and Every Change of Circumstances, Emergency Events Relating to Violation of Environmental Legislation</i>				
Inform EPD on each changes of circumstances, emergency events relating to violation of environmental legislation	To inform EPD on the changes of circumstances, emergency events relating to violation of environmental legislation	Whenever a change of circumstances, emergency events relating to violation of environmental legislation is received or observed	One working day after notified by ET, or when identified by IEC	2.8
Discussion with ET, ER and contractor	To obtain more information related to the changes of circumstances, emergency events relating to violation of environmental legislation	Whenever a change of circumstances, emergency events relating to violation of environmental legislation is received or observed	One working day after notified by ET, or when identified by IEC	2.8
Conduct Ad-Hoc site inspection at the works site reported	To obtain more information related to the changes of circumstances, emergency events relating to violation of environmental legislation	Whenever a change of circumstances, emergency events relating to violation of environmental legislation is received or observed	One working day after notified by ET, or when identified by IEC	2.8
<i>Proper Records Keeping and Report and Information Transfer Mechanism</i>				



Actions	Objectives of the Action	Timing / Frequency	Response Turnaround time	EP Condition
Saves soft copy of files in a computer on site	To record all received and released documentations for the Project on site	Whenever a document is received or released	Not Applicable	2.8
Retrieve relevant information and send to EPD via e-mail	To provide information to EPD upon request	Whenever a request was received from EPD	2 working days	2.8



5. REVIEW OF THE REPORTING MECHANISM

- 5.1) When considered appropriate by the IEC or EPD, the reporting mechanism would be adjusted. IEC shall review and update the reporting mechanism in consultation with EPD, to suit the changing project situation.
- 5.2) As such, the reporting mechanism detailed in this proposal shall be reviewed regularly upon commencement of construction works. Should the mechanism be optimized, the IEC shall propose the revision in Monthly Audit Reports to notify CEDD and EPD. This proposal shall then be updated and delivered to CEDD and EPD in the next reporting month for acceptance.



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Appendix A

IEC Site Inspection Report



Environmental Permit No. EP-510/2016
Site Formation and Infrastructure for Police Facilities in Kong Nga Po
IEC Site Inspection Report

Date:	
Time:	
IEC / IEC Representative:	

Works area / Mitigation measures inspected:	
Observation:	Rectified by the Contractor on:
<p style="text-align: center;">Photo Record</p>	<p style="text-align: center;">Rectified Photo</p>

Signed by IEC / IEC team member	Signed by RE
 (Name)	 (Name)



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Appendix B

IEC Observation Report



Environmental Permit No. EP-510/2016
Site Formation and Infrastructure for Police Facilities in Kong Nga Po
IEC Observation Report

**Observation/Non-compliance Review by
Independent Environmental Checker**

Date:	
Document / Record Checked:	
IEC / IEC Representative:	

Requirements of Environmental Monitoring and Audit

Reference:	

Observation / Non-compliance Review by IEC

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Observation Photo(s)

Photo	Photo
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Follow-up Action(s) Required

Signed By

Mr. Kevin Li
Independent Environmental Checker

Date: