香港青年協會
the hongkong federation of youth groups

Phase III Redevelopment of The Hong Kong Federation of Youth Groups Jockey Club Sai Kung Outdoor Training Camp

Quarterly EM&A Summary Report for 22 June – 30 September 2011







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Executive Summary

This is the first quarterly Environmental and Audit (EM&A) Summary Report for the project "Phase III Redevelopment of The Hong Kong Federation of Youth Groups Jockey Club Sai Kung Outdoor Training Camp" (Environmental Permit No. EP-410/2010).

This report summarise the results and findings of impact monitoring for the activities undertaken during the period of 22 June to 30 September 2011.

The site activities in the reporting period mainly consisted of site preparation works including hoarding, tree felling, formation of access road and predrilling for minipiles, installation of checkpoints, and precautionary measures for demolition of footbridge. Weekly site inspections, landscape and visual and ecological monitoring were performed.

Tree protection measures and preparation works for tree transplantation are being implemented. Compensatory mangrove planting and off-site woodland compensatory planting at Lui Ta Shek have been completed. Monitoring results show that survival and growth of mangrove seedlings are satisfactory, while the survival of tree seedlings ranged from fair to poor. According to the Event and Action Plan for Ecological Impact, actions due to non-compliance were taken in accordance with the action plan. IEC has been informed, and a site visit with the landscape contractor and the landscape consultant was made to inspect the plantings. It is agreed that firming up and fertilising will be conducted in early October 2011. Discussion regarding further remedial actions with the IEC and Landscape Contractor are underway. Monitoring will continue to monitor remedial actions until rectification has been completed.

Implementation status of environmental mitigation measures, event/action plan and environmental complaint handling procedures were inspected during weekly site environmental audit. The Contractor has started to establish the waste management plans to handle solid and chemical wastes produced on site. In general, waste management was satisfactory during the reporting month. There was no complaint, notification of any summons and successful prosecutions against the project received during the reporting period. The environmental performance of the project was generally satisfactory.

1. BASIC PROJECT INFORMATION

1.1 Project Background

1.1.1 The project "Phase III Redevelopment of The Hong Kong Federation of Youth Groups Jockey Club Sai Kung Outdoor Training Camp (hereinafter referred to as the "Project") is to redevelop the existing Jockey Club Sai Kung Outdoor Training Camp and increase the number of dormitories and canteen capacity in order to meet the increasing public demand. The Project Site is located at the southern extremity of Tai Mong Tsai, at the foothill of Cheung Shan and is accessed via Tai Mong Tsai Road. The Site Location Plan is shown in **Figure 1.1.**

1.1.2 The Project includes four major components: construct seven dormitory buildings comprising a total of 19 units on the lower portion of the slope southeast of the existing buildings; construct a new canteen block at the centre of the camp comprising a dining hall, a cafeteria, activity rooms and a drop off point for arrival of visitors; construct of two platform decks for outdoor activities; and construct a new wastewater treatment and reuse system. During the detailed design stage, the footprint of the new canteen block is slightly reduced, the total number of dormitory buildings is cut down to six, while only one platform deck (Deck A) will be constructed due to budgetary concerns. The Master Layout Plan is shown in **Figure 1.2**.

1.1.3 An Environmental Permit (EP-410/2010) (EP) for the Project was granted on 10 January 2011. Under the requirements of Condition 4 of the EP, an Environmental Monitoring and Audit (EM&A) programme as set out in the EM&A Manual is required to be implemented.

1.2 Project Organisation and Management

1.2.1 The tentative Construction Programme is shown in **Appendix A**.

1.2.2 The contact person and telephone number of key personnel for the Project are shown in **Appendix B**.

1.2.3 The project organisation for environmental management is shown in **Appendix C**.

1.3 Purpose of the Report

1.3.1 This is the first quarterly EM&A Report prepared for the Project, pursuant to the EM&A Manual issued for the Project. The report presents a summary of the EM&A works and lists of activities in June to September 2011 (from 22 June 2011 to 30 September 2011).

2. MONITORING AND AUDIT REQUIREMENT

2.1.1 The monitoring and audit requirement as described in the EM&A Manual for noise, air quality, water quality, landscape and visual, ecology and waste management are summarised in **Table 2.1** below.

2.1.2 The event and action plans for landscape and visual impacts and ecology are stated in **Appendix D** and **Appendix E** respectively. The Implementation Schedule of Mitigation Measures is attached in **Appendix F**. The monitoring schedule for the reporting quarter and the weather conditions recorded are shown in **Appendix G**.

Table 2.1 Summary of Monitoring and Audit Requirement

Monitoring Items	Monitoring Parameter	Monitoring Frequency
Noise, Air and Water Quality	Visual Inspection	Weekly during site inspections
Landscape and Visual	Visual Inspection - to check tree protection and transplanting works, and maintenance of newly planted vegetation	At least once every two weeks during site inspections
Ecology	Visual Inspection – survival and growth of transplanted Aquilaria sinensis	First three months after transplanting and quarterly thereafter for two years
	Measure height and percentage survival of planted mangrove	Monthly for the first three months and quarterly thereafter for one year
	Visual Inspection - on-site and off-site compensatory planting	Monthly for the first three month after planting and quarterly thereafter for two years
Waste Management	Visual Inspection and audit waste management issues and and Environmental Management Plan prepared by the main contractor	Weekly during site inspections
Site Inspection	Visual Inspection - to ensure appropriate environmental protection and pollution control mitigation measures are properly implemented	Weekly

3. SUMMARY OF WORK ACTIVITIES AND CONSTRUCTION STATUS

3.1 Works Undertaken during the Quarter

3.1.1 Works activities including tree felling, hoarding, formation of access road, predrilling for minipiles, installation of checkpoints and precautionary measures for demolition have been commenced during the reporting quarter. A summary of works activities, locations and dates of occurrence in the quarter is provided by the Contractor, as shown in **Table 3.1**.

Table 3.1 Works Activities between 22 June to 30 September 2011

Item	Work Activities & Location	Date of Occurrence
1	Site Handover	22 Jun 2011 – 30 Jun 2011
2	Establishment	22 Jun 2011 – 30 Jun 2011
3	Pre-Construction Condition Survey	22 Jun 2011 – 30 Jun 2011
4	Checking of Existing Trees	22 Jun 2011 – 30 Jun 2011
5	Hoarding – Canteen Block, Dormitory	1 July 2011 – 30 Sep 2011
6	Tree Felling, Canteen Block, Dormitory	1 July 2011 – 30 Sep 2011
7	Formation of Access Road, Canteen Block, Dormitory	1 July 2011 – 31 July 2011
8	Installation of Checkpoints – Canteen Block, Dormitory	1 July 2011 – 30 Sep 2011
9	Predrilling for Minipiles	1 Aug 2011 – 30 Sep 2011
10	Precautionary Measures for Demolition – Footbridge	1 Sep 2011 – 30 Sep 2011

4. LANDSCAPE AND VISUAL

4.1 Tree Protection and Transplanting

4.1.1 The Tree Protection and Transplantation Plan has been submitted to EPD on 14 March 2011, pursuant to Condition 3.3 of the EP.

4.1.2 All trees at the Dormitory and the Canteen Site were labelled according to the approved tree removal applications with blue (retained), red (fell) and yellow (transplanted) ribbons. These included the 3 nos. of Incense Trees to be retained and 5 nos. of Incense Tree to be transplanted[1]. Tree felling at Canteen Block area has been commenced.

4.1.3 Tree protection measures including construction of chain link fence at the Canteen Block area are completed in August 2011. Although no site works has been started in the Dormitory area, the contractor was reminded to implement the tree protection measures in the Dormitory area as soon as possible. During site inspection, the contractor was also reminded of proper tree protection measures such as removal of construction materials from tree protection zone. The tree protection measures were rectified and will continue. Photo records of the tree protection status is shown in Figure 4.1.

4.1.4 Preparation works for tree transplantation have also been commenced accordingly. The second round of root pruning is re-scheduled tentatively from early September to November 2011 because the site clearance and preparation works at the dormitory site will be extended, and the recipient site is not ready for transplantation..

4.1.5 No trespass by the Contractor outside the limit of the works, including any damage to existing trees, woodland and vegetation, was noted.

5. ECOLOGY

5.1 Monitoring of Transplanted Incense Trees

5.1.1 Since preparation works for tree transplantation are still underway (see 4.1.4), no monitoring was conducted during the reporting quarter.

5.2 Mangrove Monitoring

5.2.1 The Mangrove Planting Plan was submitted to EPD in 11 March 2011, pursuant to Condition 3.3 of the EP. The Planting Plan was approved on 23 March 2011.

5.2.2 Planting was commenced and completed on 29 April 2011. About 1243 droppers of *Kandelia obovata* were planted on about 0.01 ha of sandflat following the protocol in the mangrove planting plan under the supervision of the ET. The planting area was further fine-tuned to avoid rocky/shallow substrate to enhance the survival (**Figure 5.1)**.

5.2.3 Mangrove monitoring was conducted monthly for the first three months in June,

[1] The label of the Incense tree #776 reported dead during the baseline report was found to be swapped with another tree #775 nearby. The tree label was therefore rectified and total number of transplanted Incense Tree remained to be five (i.e. #775, #766, #643,#639 and #644).

July, and August 2011. 10 1m x 1m quadrats were set. Number of mangrove seedlings was counted, and height measured from ground level (including length of the exposed dropper) to the top of the seedling to the nearest cm. The health condition of the planted seedlings was also noted. Photo records of the mangrove plantings were taken (**Figure 5.2**). The average height of mangrove seedlings increased (**Appendix H**), and most of the seedlings displayed 4-5 pairs of young leaves. The number of recorded seedlings decreased probably due to grazing as a feral cattle was observed wandering on the sandflat by camp staff. Advice was given to camp staff to deter feral cattle from approaching the mangrove planting area as possible in the future.

5.2.4 According to the EM&A manual, mangrove monitoring will be conducted quarterly after the first three month and therefore will be conducted again in November 2011.

5.3 Off-Site Woodland Compensatory Planting

5.3.1 The Tree Whip Planting Plan for Off-Site Woodland Compensatory Planting at Lui Ta Shek was submitted to EPD on 14 March and 27 April 2011, pursuant to Condition 3.3 of the EP. **Figure 5.3** shows the approved plan and planting specification.

5.3.2 Planting was commenced and was reported to be completed by the landscape contractor on 13 June 2011. Monitoring was conducted on July, August and September 2011. Photo records of the planting and monitoring were shown in **Figure 5.4**.

5.3.3 Individuals of the six planted species were in fair to poor conditions. *Schefflera heptaphylla,* and *Schima superba* was in fair conditions, where healthy leaves and little signs of insect attack or desiccation were observed. Other species, including *Castanopsis fissa, Machilus breviflora*, *Sterculia lanceolata*, and *Litsea glutinosa* suffered from different degree of herbivory and desiccation. Dead seedlings were also observed. According to the Event and Action Plan for Ecological Impact (**Appendix E**), actions due to non-compliance were taken in accordance with the action plan. IEC was informed. The landscape contractor was informed regarding the situation and reminded of the required remedial and maintenance work. A site visit with the landscape contractor and the landscape consultant was made on 29 August 2011 to inspect the plantings. Discussion about the cause and the remedial actions with the IEC and Landscape Contractor are underway. The landscape contractor agreed to carry out firming up and fertilizing the seedlings in October 2011. A remedial action proposal will also be prepared and submitted to the Project Proponent in due course. Monitoring frequency has been increased from quarterly to monthly as part of the mitigation measures for the non-compliance event recorded for off-site woodland compensatory planting and will continue to check the growing conditions of the plants, and remedial actions will be monitored until rectification has been completed.

6. ENVIRONMENTAL AUDITING

6.1 Site Inspections

6.1.1 The schedule of the weekly site inspections and the monthly Site Safety and Environmental Management Committee (SSEMC) site meeting and inspection audit with the Contractor, Project Proponent, Project Architect and IEC was

summarised in **Appendix G**. A detailed checklist of each site inspection together with comments, relevant photos and maps have been filed and kept.

Air Quality, Noise and Water Quality

6.1.2 Overall, the air quality and the noise generated from the construction activities during weekly site audits were satisfactory. Minor housekeeping issues were observed. Appropriate actions have been taken by the contractor as advised. The Contractor was reminded of implementing proper water quality control measures such as removing the stagnant water to prevent mosquito breeding, maintaining and removing the silt and grit regularly, and providing temporary drainage system and additional sedimentation tank for back up use. Implementation status will be inspected continuously.

Waste Management

6.1.3 During the reporting quarter, accumulation of general refuse, construction waste, construction materials and green waste were constantly observed. Contractor was reminded to remove these materials and to implement good housekeeping practices. All collected general waste and construction waste materials should be segregated and temporarily stored properly on-site and disposed of in an appropriate manner.

6.1.4 It is the contractor's responsibility to ensure that all wastes produced during the construction phase for the Project are handled, stored and disposed of in accordance with good waste management practices and EPD's regulation and requirement. Waste materials generated during construction activities, such as construction and demolition (C&D) material and general refuse were inspected during weekly site audit by ET to ensure that proper storage, transportation and disposal practices are being implemented.

6.1.5 The waste generation and disposal in reporting quarter is summarized in **Appendix I**.

Landscape and Visual Environment

6.1.6 Generally, the Contractor had provided proper landscape and visual mitigation measures during inspection except that retained trees at the dormitory site were not yet provided with protective net or proper fencing as tree protection zone while some tree protection fencing at the canteen site was broken. Contractor was advised and implemented suitable measures to protect the retained trees.

7. SUMMARY OF ENVIRONMENTAL PERMIT AND LICENSES

7.1.1 ET has checked with the Project Proponent for the status of all environmental permits and licenses for this project as of September 2011, which is summarized in **Appendix J**. ET will keep track of the application process of the outstanding permits/licenses to be applied by the Contractor(s) for the Project.

8. CUMULATIVE LOG OF COMPLAINTS AND REMEDIAL ACTION

8.1.1 There was no complaint received in association with installation activities in the reporting quarter. The cumulative log of complaints is referred in **Appendix K**.

9. CUMULATIVE LOG OF NOTIFICATION OF SUMMONS AND PROSECUTIONS

9.1.1 No notification of summons or prosecutions were received or made against the Project in the reporting quarter. The cumulative log of summons and prosecutions is referred in **Appendix K**.

10. CONCLUSIONS AND RECOMMENDATIONS

10.1.1 Tree protection measures and preparation works for tree transplantation are being implemented. The temporary drainage and hoarding were also under construction. The contractor was advised to construct proper temporary drainage, hoarding and fencing retained trees as soon as possible before major site works.

10.1.2 Compensatory mangrove planting and off-site woodland compensatory planting at Lui Ta Shek have been completed. Monitoring results show that survival and growth of mangrove seedlings are satisfactory, while the survival of tree seedlings ranged from fair to poor. According to the Event and Action Plan for Ecological Impact, actions due to non-compliance were taken in accordance with the action plan. IEC has been informed, and discussion regarding the cause of poor survival and remedial actions with the IEC and Landscape Contractor are underway. Monitoring schedule for off-site woodland compensatory planting has been increased from quarterly after three consecutive months to monthly and will continue next month to monitor remedial actions until rectification has been completed.

10.1.3 Generally, air and noise level during the reporting period were satisfactory. Minor housekeeping issues were observed. Appropriate actions have been taken by the contractor as advised. The Contractor was reminded of implementing proper water quality control measures such as removing the stagnant water to prevent mosquito breeding, maintaining and removing the silt and grit regularly, and providing temporary drainage system and additional sedimentation tank for back up use. ET had reminded the contractor to provide environmental pollution control measures wherever necessary; and to keep a good environmental management at site practice. Implementation status will be inspected continuously.

10.1.4 There were not any notifications of summons recorded during the reporting period. Furthermore, there were not any formal prosecution and complaints recorded.

FIGURES

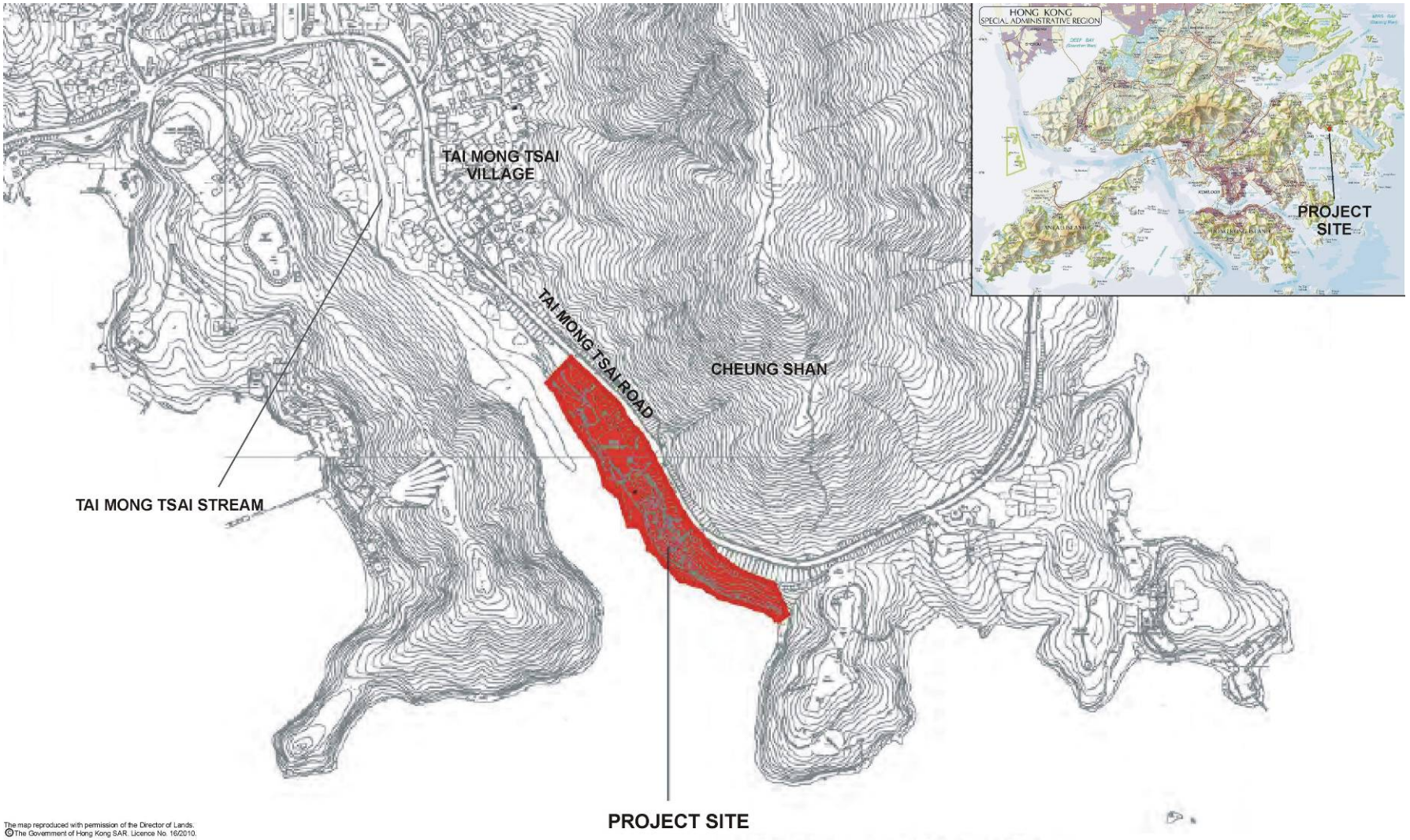
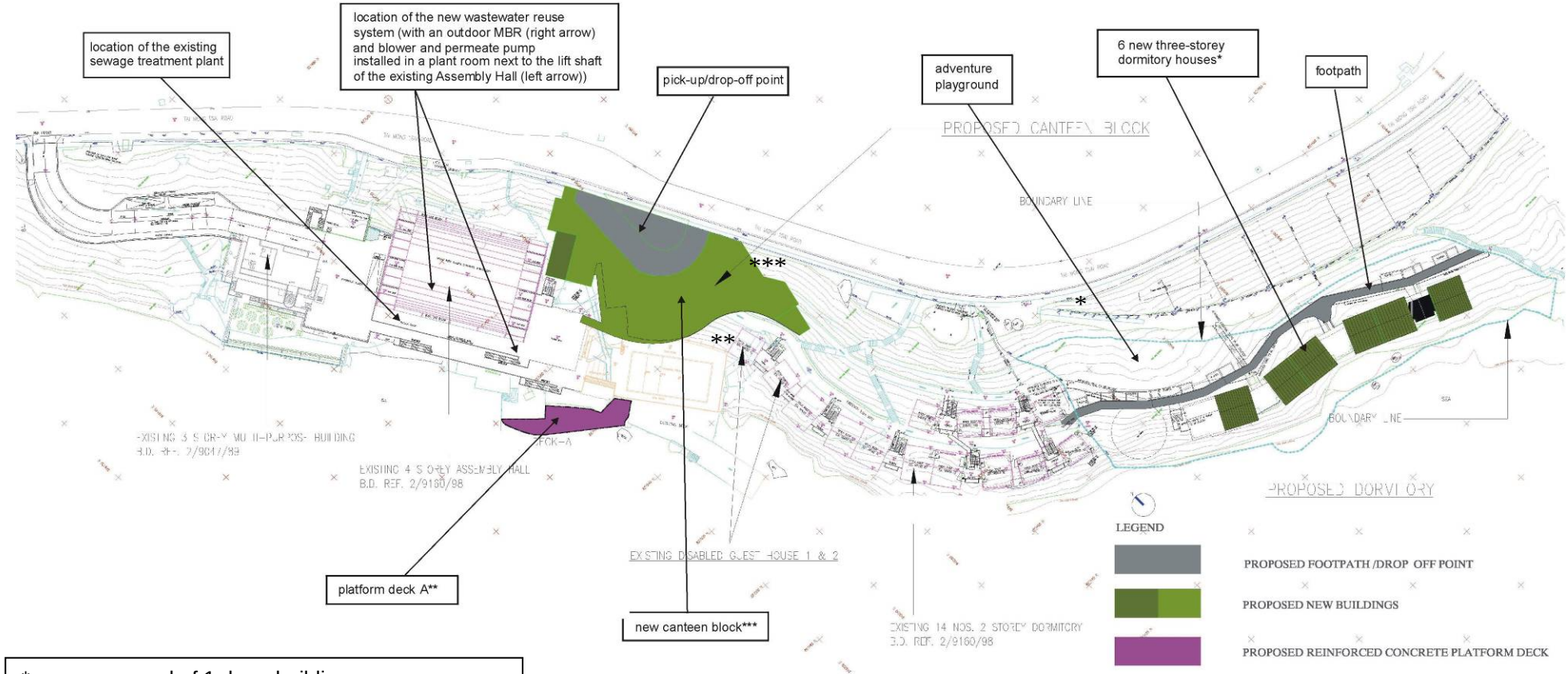


Figure 1.1 Site Location Plan



*	removal of 1 dorm building
**	removal of platform Deck B
***	reduction of size of canteen block

Figure 1.2 Master Layout Plan







Completion of tree protection fencing at Canteen Block Section





Dormitory Section (temporary hoarding in place, no tree fencing or site works in place)

Figure 4.1 Photo Records of Tree Protection Status

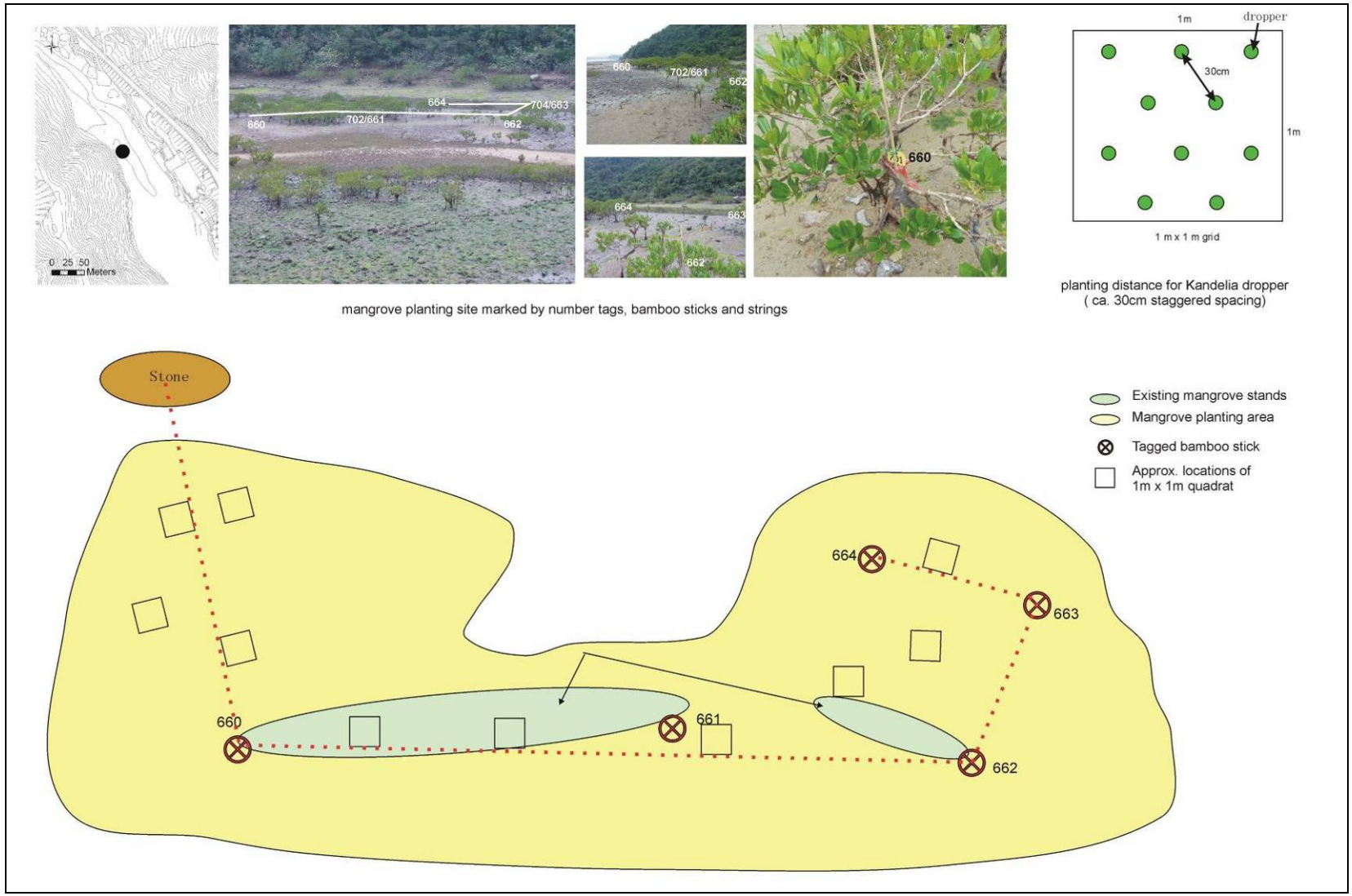
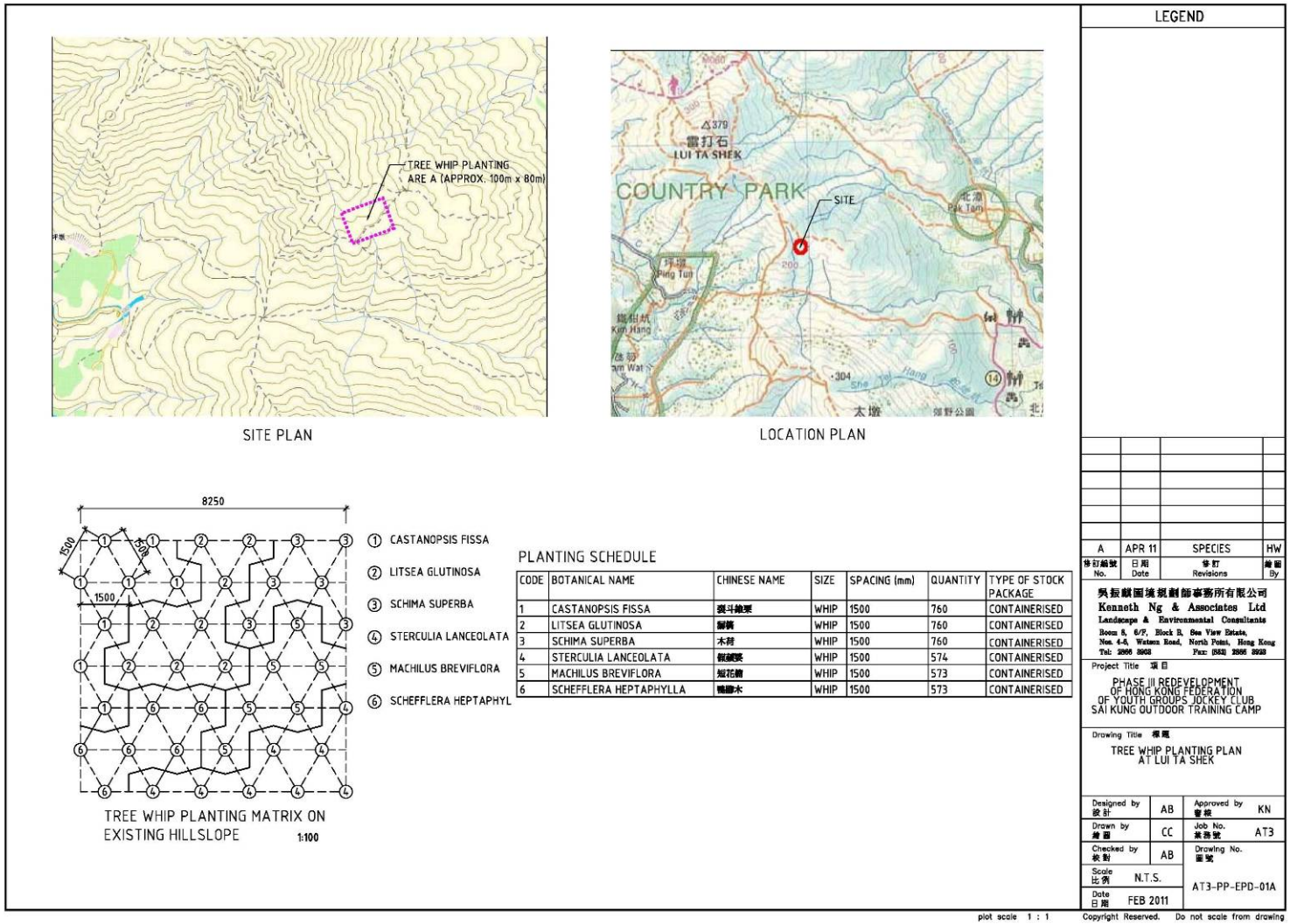


Figure 5.1 Mangrove Compensatory Planting Site and Sampling Locations



Figure 5.2 Photo Records of Mangrove Plantings as of August 2011



CODE	BOTANICAL NAME	CHINESE NAME	SIZE	SPACING (mm)	QUANTITY	TYPE OF STOCK PACKAGE
1	CASTANOPSIS FISSA	褐斗櫧	WHIP	1500	760	CONTAINERISED
2	LITSEA GLUTINOSA	潺槁	WHIP	1500	760	CONTAINERISED
3	SCHIMA SUPERBA	木荷	WHIP	1500	760	CONTAINERISED
4	STERCULIA LANCEOLATA	假蘇樂	WHIP	1500	574	CONTAINERISED
5	MACHILUS BREVIFLORA	短花楠	WHIP	1500	573	CONTAINERISED
6	SCHEFFLERA HEPTAPHYLLA	鴨腳木	WHIP	1500	573	CONTAINERISED

Figure 5.3 Tree Whip Planting Plan for Off-Site Woodland Compensatory Planting at Lui Ta Shek

Figure 5.4 Photo Records of Off-Site Woodland Compensatory Planting at Lui Ta Shek

JULY 2011



Overview of the planting site



Schefflera heptaphylla



Sterculia lanceolata



Schima superba



Castanopsis fissa



Machilus breviflora



Litsea glutinosa

AUGUST 2011



Overview of the planting site



Schefflera heptaphylla



Sterculia lanceolata



Castanopsis fissa



Machilus breviflora



Schima superba

SEPTEMBER 2011



Overview of the planting site



Schefflera heptaphylla



Sterculia lanceolata



Castanopsis fissa



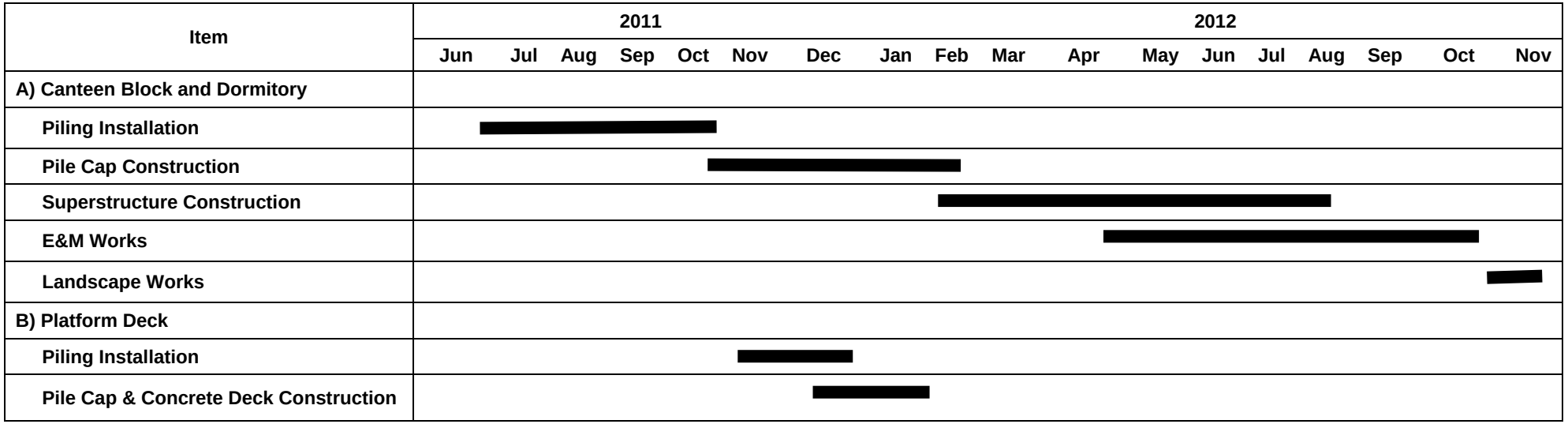
Litsea glutinosa



Schima superba

Appendices

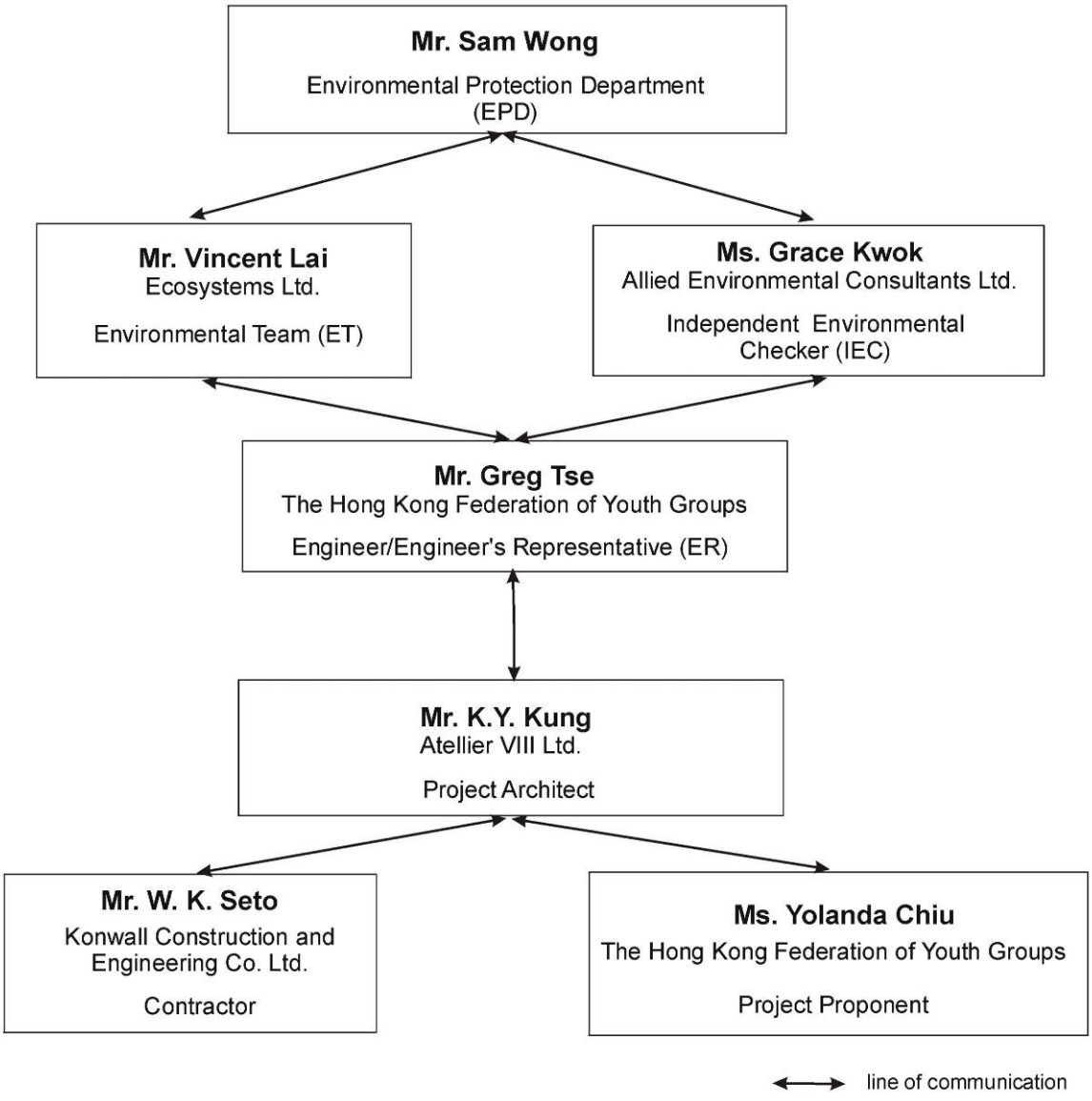
Appendix A Tentative Construction Programme



Appendix B The Key Contact Persons, Phone Numbers and Key Personnel

Party	Name	Telephone No.
Project Proponent		
The Hong Kong Federation of Youth Groups		
Deputy Executive Director	Ms. Yolanda CHIU	37557134
Engineer Representative	Mr. Greg TSE	97811411
Architect		
Atelier VIII Ltd.		
Project Architect	Mr. K.Y. KUNG	28914296
Project Architect	Ms. Stella LUK	28914296
Project Officer	Mr. Dennis LEUNG	28914296
Contractor (Foundation)		
Konwall Construction and Engineering Co. Ltd.		
Project Director	Mr. Eric KWOK	25631233
Project Manager	Mr. W. K. SETO	62020195
Site Agent	Mr. H.Y. Cheung	96348220
Environmental Officer	Mr. Joe LAM	63306705
Independent Environmental Checker		
Allied Environmental Consultants Ltd.		
IEC Team Leader	Ms. Grace KWOK	28157028
IEC Team	Ms. Winnie MA	28157028
Environmental Team		
Ecosystems Ltd.		
ET Leader	Mr. Vincent LAI	25530468
Deputy/Monitoring Team Leader	Ms. M. L. YAU	25530468
Environmental Pioneers and Solutions Ltd.		
Environmental Technician	Ms. Natalie Lai	36789749
Environmental Technician	Mr. Allen Chan	36789759

Appendix C Project Organisation



Appendix D
Event and Action Plan for Landscape and Visual Impact - Construction Phase

Action Level	Environmental Team (ET) Leader	Independent Environmental Checker (IEC)	Engineer's Representative (ER)	Contractor
Non-conformity on one occasion	1. Identify source 2. Inform the IEC and the ER 3. Discuss remedial actions with the IEC, the ER and the Contractor 4. Monitor remedial actions until rectification has been completed	1. Check report 2. Check the Contractor's working method 3. Discuss with the ER and the Contractor on possible remedial measures 4. Advise the ER on effectiveness of proposed remedial measures	1. Notify the Contractor 2. Ensure remedial measures are properly implemented	1. Amend working methods 2. Rectify damage and undertake remedial measures or any necessary replacement
Repeated Non-conformity	1. Identify source 2. Inform the IEC, the ER and EPD 3. Increase monitoring (site audit) frequency 4. Discuss remedial actions with the IEC, the ER and the Contractor 5. Monitor remedial actions until rectification has been completed 6. If exceedance stops, cease additional monitoring (site audit)	1. Check report 2. Check the Contractor's working method 3. Discuss with the ER and the Contractor on possible remedial measures 4. Advise the ER on effectiveness of proposed remedial measures 5. Supervise implementation of remedial measures	1. Notify the Contractor 2. Ensure remedial measures are properly implemented	1. Amend working methods 2. Rectify damage and undertake remedial measures or any necessary replacement

Appendix E
Event and Action Plan for Ecological Impact - Construction Phase

Action Level	Environmental Team (ET) Leader	Independent Environmental Checker (IEC)	Camp operator/ Landscape Contractor
Poor survival or health of mangrove planting	1. Identify source 2. Inform the IEC 3. Discuss remedial actions with the IEC and Camp operator 4. Monitor remedial actions until rectification has been completed	1. Check report 2. Discuss with the Camp operator on possible remedial measures 4. Advise the Camp operator on effectiveness of proposed remedial measures	1. Amend planting programme and replant as necessary
Poor survival or health of woodland planting	1. Identify source 2. Inform the IEC 3. Discuss remedial actions with the IEC and Landscape Contractor 4. Monitor remedial actions until rectification has been completed	1. Check report 2. Discuss with the Landscape Contractor on possible remedial measures 4. Advise the Landscape Contractor on effectiveness of proposed remedial measures	1. Amend maintenance programme and replant as necessary
Poor survival of transplanted trees	1. Identify source 2. Inform the IEC 3. Discuss remedial actions with the IEC and Landscape Contractor 4. Monitor remedial actions until rectification has been completed	1. Check report 2. Discuss with the Landscape Contractor on possible remedial measures 4. Advise the Landscape Contractor on effectiveness of proposed remedial measures	1. Amend maintenance programme and replant as necessary

Appendix F Implementation Schedules for Mitigation Measures

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Implementation Status of the Mitigation Measures*	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve
Noise								
3.6.1	2.3.1	• Contractor shall comply with and observe the Noise Control Ordinance (NCO) and its current subsidiary regulations; • Before the commencement of any work, the Contractor shall submit to the Engineer for approval the method of working, equipment and sound-reducing measures intended to be used at the Project Site; • Contractor shall devise and execute working methods that will minimise the noise impact on the surrounding environment, and shall provide experienced personnel with suitable training to ensure that these methods are implemented; • Only well-maintained plant and equipment should be operated on-site; • Plant/equipment should be serviced regularly during the construction programme; • Machines that may be in intermittent use should be shut down or throttled down to a minimum between work periods; • Silencers and/or mufflers on construction equipment should be utilised and should be properly maintained during the construction programme; • Noisy activities should be scheduled to minimise exposure of nearby NSRs to	Y Y Y Y Y Y Y Y	Good site practices to minimise construction Noise Impact	The Contractor	Construction Site	Construction Phase	EIAO and Environmental Permit; NCO and its regulations

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Implementation Status of the Mitigation Measures*	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve
		high levels of construction noise. For example, noisy activities should be scheduled for midday or at times coinciding with periods of high background noise (such as during peak traffic hours); • Noisy equipment such as emergency generators shall always be sited as far away as possible from noise sensitive receivers; • Mobile plant/equipment should be sited as far away from NSRs as possible; and • Material stockpiles and other structures should be effectively utilised as noise barriers, where practicable.	Y Y N/A					
Water								
4.7.2	3.3.1	• High loading of suspended solids (SS) in construction site runoff shall be prevented through proper site management by the contractor; • The boundary of critical work areas shall be surrounded by sandbags, ditches, or embankments. Accidental release of soil or refuse onto the adjoining land should be prevented by the provision of site hoarding or earth bunds at the site boundary. These facilities should be constructed in advance of site formation works and roadworks; • Consideration should be given to plan construction activities to allow the use of natural topography of the Project Site as a barrier to minimise uncontrolled non-point source discharge of construction	On-going On-going N	Good site practices to minimise construction water quality Impact due to potential site runoff and chemical leakage	The Contractor	Construction Site	Construction Phase	EIAO and Environmental Permit; WPCO and its regulations

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Implementation Status of the Mitigation Measures*	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve
		site runoff; • Temporary ditches or earthen bunds should be provided to facilitate directed and controlled discharge of runoff into storm drains via sand/ silt removal facilities such as sand traps, silt traps and sediment retention basin. Oil and grease removal facilities should also be provided where appropriate, for example, in area near plant workshop/ maintenance areas;	N					
		• Sand and silt removal facilities, channels and manholes should be maintained and the deposited silt and grit should be removed regularly by the contractor, and at the onset of and after each rainstorm to ensure that these facilities area functioning properly;	N					
		• Slope exposure should be minimised where practicable especially during the wet season. Exposed soil surfaces should be protected from rainfall through covering temporarily exposed slope surfaces or stockpiles with tarpaulin or the like;	Y					
		• Haul roads should be hard paved by laying crushed rock, gravel or other granular materials to minimise discharge of contaminated runoff;	N					
		• Plant workshop/ maintenance areas, if any, should be bunded and constructed on a hard standing. Sediment traps and oil interceptors should be provided at appropriate locations;	N					
		• Manholes (including newly constructed ones), if any, should be adequately	N					

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Implementation Status of the Mitigation Measures*	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve
		covered or temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system; • Construction works should be programmed to minimise soil excavation works where practicable during rainy conditions; • Chemical stores should be contained (bunded) to prevent any spills from contact with water bodies. All fuel tanks and/ or storage areas should provided with locks and be sited on hard surface; • Chemical waste arising from the construction of the Project Site should be properly stored, handled, treated and disposed of in compliance with the requirements stipulated under the Waste Disposal (Chemical Waste) (General) Regulation; • Drainage facilities must be adequate for the controlled release of storm flows.	N Y Y N					
4.7.2	3.3.1	• Sewage generated from the construction workforce should be contained in chemical toilets until connection to public foul sewer can be provided. Chemical toilets should be provided at a minimum rate of about 1 per 50 workers. The facility should be serviced and cleaned by a specialist contractor at regular intervals; • Vehicle wheel washing facilities should be provided at the site exit such that mud, debris, etc. deposited onto the vehicle wheels or body can be washed off before the vehicles leave the Project	Y N	Good site practices to control the wastewater generated from the construction site	The Contractor	Construction Site	Construction Phase	

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Implementation Status of the Mitigation Measures*	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve
		site; • The section of the road between the wheel washing bay and the public road should be hard paved with backfill to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.	N					
4.7.3	3.3.1	• Spillage of fuel oils or other polluting fluids should be prevented at source. It is recommended that all stocks should be stored inside proper containers and sited on sealed areas, preferably surrounded by bunds	Y	Good site practices to minimise construction water quality Impact due to avoid spillage of chemical				
4.7.6	3.3.2	• Apart from the online monitoring and control system for the wastewater quality, regular sampling programme will be devised to further safeguard and ensure that the quality of the treated effluent is suitable for reuse. Should the treated effluent not meet the required standards for irrigation and flushing or in case of breakdown of the wastewater system, a contingency plan would be triggered. The wastewater reuse system will be shut down. The canteen wastewater from Phase III will be held in the new holding tank for the MBR. The new holding tank has a capacity of $15m^3$ and a minimum storage time of half day capacity. The canteen wastewater will then be diverted to the existing sewage treatment plant via the coarse screen chamber, and it will be held in the equalisation holding tank, with a	N/A	Contingency plan to further safeguard the water quality of the surrounding environment and ensure that the quality of the treated effluent is suitable for reuse	Proponent	Project Area	During design, construction and operation	EIAO and Environmental Permit; WPCO and its regulations

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Implementation Status of the Mitigation Measures*	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve
		capacity of 96m^3, for screening and treatment. The existing sewage treatment plant (with maximum treatment capacity of 152.7m^3/d) for Phase I & II has a daily flow of 35m^3 per day, so it has a spare capacity of more than 50%, which is adequate to treat the canteen wastewater. The treated effluent for direct discharge will not undergo any chlorination process. During this period, both irrigation system and flushing system will use the fresh water from city main as water source. The water reuse system would be fully inspected for problem fixing before re-operation.						
Air Quality								
5.7.2	4.3.1	• The designated haul road should be hard paved; • The site should be water sprayed four times a day during site formation work of the residential portion of the Project Site; • Dump truck beds for material transport should be totally enclosed using impervious sheeting; • any excavated dusty materials or stockpile of dusty materials should be covered entirely by impervious sheeting or sprayed with water so as to maintain the entire surface wet, and recovered or backfilled or reinstated within 24 hours of the excavation or unloading; • The stockpiled malodorous materials, if	N Y Y Y N/A	Good site practice to minimise construction fugitive dust impact	The Contractor	Construction Site	Construction Phase	EIAO and Environmental Permit; APCO and its regulations

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Implementation Status of the Mitigation Measures*	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve
		any, should be placed as far as possible from any ASRs and removed from Project Site as soon as possible, and they should be covered entirely by plastic tarpaulin sheets;						
		• Dusty materials remaining after a stockpile is removed should be wetted with water;	Y N					
		• The vehicle washing area and the section of the road between the washing facilities and the exit point should be paved with e.g. concrete, bituminous materials or hardcore or similar;	Y					
		• Stockpile of dusty materials to be either covered entirely by impervious sheeting, placed in an area sheltered on the top and the 3 sides; or sprayed with water so as to maintain the entire surface wet;	Y					
		• All dusty materials to be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty material wet;	Y					
		• Vehicle speed to be limited to 10 kph except on completed access roads;	N					
		• The portion of road leading only to a construction site that is within 30 m of a designated vehicle entrance or exit should be kept clear of dusty materials;	N					
		• Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites;	Y					
		• The load of dusty materials carried by vehicles leaving a construction site should be covered entirely by clean impervious sheeting to ensure that the						

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Implementation Status of the Mitigation Measures*	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve
		dusty materials do not leak from the vehicle; • The working area of excavation should be sprayed with water immediately before, during and immediately after (as necessary) the operations so as to maintain the entire surface wet.	Y					
Ecology								
6.9.3	5.2.2	Preserve three no. and transplant five no. of *Aquilaria sinensis*	In progress	Minimise construction ecological impacts on species on protected species	Contractor	On Project Site	Construction Phase	ETWB(W) 3/2006: Tree Preservation. Agree on the maintenance requirement and programme
6.9.7	5.2.3	Compensatory mangrove planting (0.01 ha)	Y	Mitigate loss of 0.01 ha of mangrove	Proponent	Sandflat near Project Site	Construction Phase	Agree on the maintenance requirement and programme
6.9.8	5.2.4	Compensatory woodland planting (0.03 ha within Project Site and 0.8 ha in Sai Kung West Country Park)	N (within Project Site) Y (in Sai Kung West Country Park)	Mitigate loss of 0.31 ha of woodland	Contractor	On Project Site and Lui Ta Shek inside Sai Kung West Country Park	Construction Phase	Agree on the maintenance requirement and programme
6.9.4	5.2.6	Good site practices	Y	To minimise environmental impacts and therefore potential ecological impacts within and near the construction site	Contractor	Entire construction site	Construction Phase	N/A
Landscape and Visual								

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Implementation Status of the Mitigation Measures*	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve
Table 7.12	Table 6.2	LMM1 - Minimizing construction area and contractor's temporary works area to avoid unnecessary impacts to landscape resources and minimize visual intrusion.	Y	Preservation of landscape resources and minimize visual intrusion	Contractor	Project area	During design and construction	EIAO-TM Annex 10, 18
Table 7.12	Table 6.2	LMM2 - Sensitively designed site hoarding in both color and form to screen view to the construction works.	In progress	Visual enhancement	Contractor	Project area	During design and construction	EIAO-TM Annex 10, 18
Table 7.12	Table 6.2	LMM3 - Preservation of existing tree to be retained on area not affected by the proposed development.	Y	Conservation of existing trees; Visual screen	Contractor	Project area	During construction	EIAO-TM Annex 10, 18 LAO PN No. 7/2007
Table 7.12	Table 6.2	LMM4 - Demarcation of the tree protection zone for retain trees.	In progress	Preservation of existing trees	Contractor	Project area	During construction	EIAO-TM Annex 10, 18 Demarcation of temporary protective fencing shall be agreed and erected before other works commence
Table 7.12	Table 6.2	LMM5 - Operational time restrictions to limit after dark welding and lighting.	Y	Limit night time glare	Contractor	Project area	During construction	EIAO-TM Annex 10, 18
Table 7.12	Table 6.2	LMM6 - Selection of fast growing native trees and shrubs mix in compensation for the removal / disturbance area.	Y	Visual screen; Landscape compensation	Contractor for planting HKFYG for management and maintenance	Project area	During design, construction and operation	EIAO-TM Annex 10, 18 Selection and agree on the specified plant species
Table 7.12	Table 6.2	LMM7 - Landscape treatment such as green roof, vertical greening and screen planting including climber plants to screen and soften surface of built structures and mitigate the landscape and visual impact.	Y	Visual enhancement	Contractor during construction HKFYG for management	Project area	During design, construction and operation	EIAO-TM Annex 10, 18 Selection and agree on the specified plant

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Implementation Status of the Mitigation Measures*	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve
					and maintenance			species
Table 7.12	Table 6.2	LMM8 - Staggered built form with building height corresponding to the natural sloping landform to enhance visual quality.	Y	To provide an interesting view on the visual receiver and to lower the overwhelming effect as may be created by the proposed building blocks	Contractor during construction HKFYG for management and maintenance	Project area	During design, construction and operation	EIAO-TM Annex 10, 18
Table 7.12	Table 6.2	LMM9 - Sensitive treatment and design to external finishes of the built structure to ensure element with colour, texture and tonal quality being compatible to the existing landscape context.	Y	Visual enhancement	Contractor during construction HKFYG for management and maintenance	Project area	During design, construction and operation	EIAO-TM Annex 10, 18
Table 7.12	Table 6.2	LMM10 - Maintenance of planting works upon completion.	In progress	Landscape compensation	Contractor for planting and maintenance during establishment HKFYG for management and maintenance	Project area	During operation	EIAO-TM Annex 10, 18 Agree on the maintenance requirement and programme
Waste Management								
8.4.6	7.2.5	• Storage of different waste types – different types of waste should be segregated and stored in different	Y	Waste management measures for	The Contractor	Construction Site	Construction Phase	EIAO and Environmental Permit;

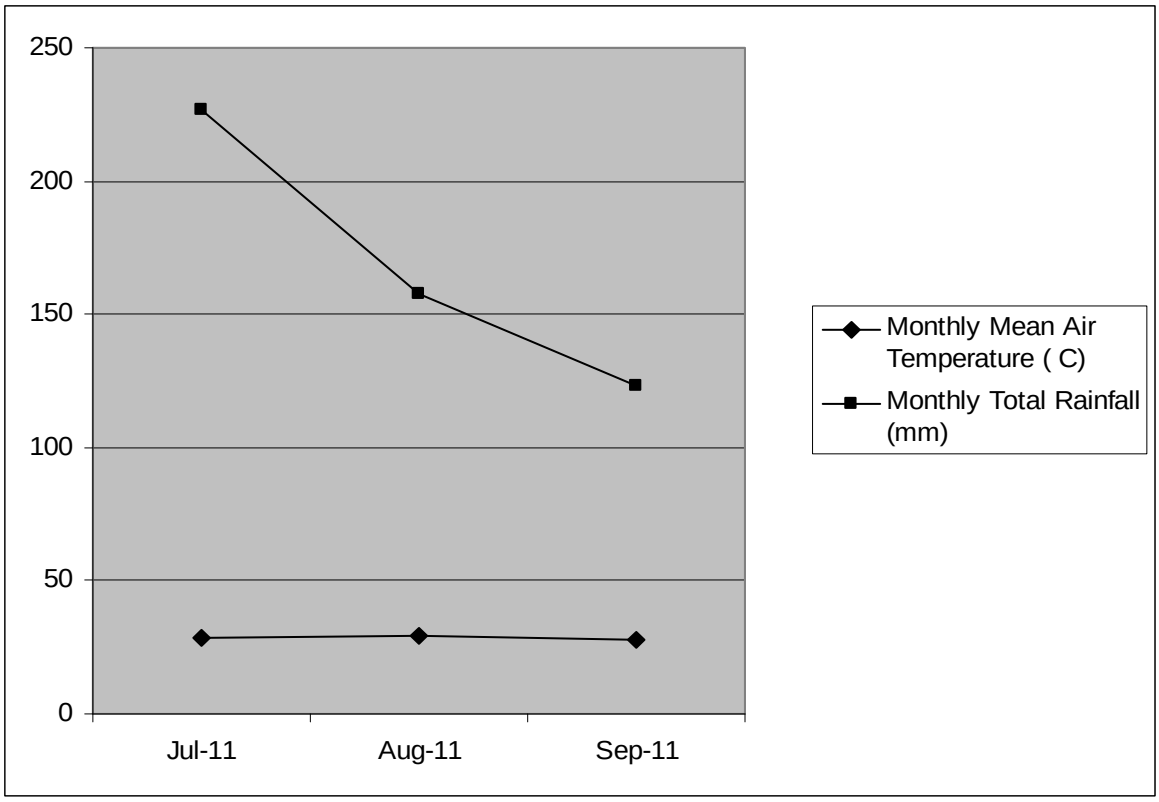
EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Implementation Status of the Mitigation Measures*	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve
		containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal. An on-site temporary storage area equipped with required control measures (e.g. dust) should be provided; • Trip-ticket system – in order to monitor the proper disposal of non-inert C&D waste to landfills and to control fly-tipping, a trip-ticket system should be included as one of the contractual requirements and audited by the Environmental Team; • Records of Wastes – a recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be proposed; • Training – The contractor should provide his workers with proper training of appropriate waste management procedure to achieve waste reduction as far as practicable and cost-effective through recovery, reuse and recycling and avoid contamination of reusable C&D materials; • Incorporate the "Recommended Pollution Control Clauses for Construction Contracts" in respect to removal of waste material from the construction site into the contract of the contractor.	Y Y Y Y	construction phase				Various guidelines stated in paragraph 8.2 of the EIA report

*Y = implemented, N = not yet implemented, N/A = not applicable

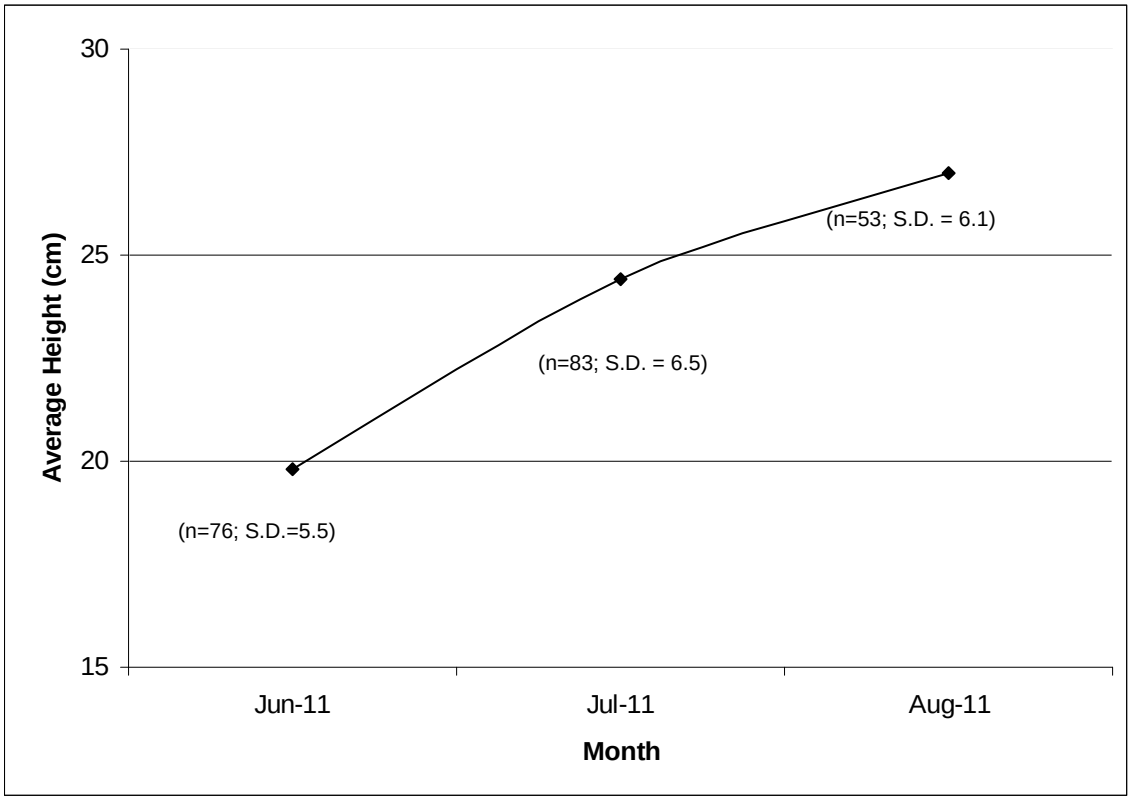
Appendix G Monitoring Schedule and Weather Conditions during the Reporting Quarter

Survey Date*	Weekly Site Inspection	Ecological Monitoring	SSEMC	Weather Condition	Monthly Mean Air temperature	Monthly Total Rainfall
7/7/2011	✓			Fine	28.8 C	226.8 mm
15/7/2011	✓			Overcast		
22/7/2011	✓		✓	Fine		
28/7/2011		✓		Fine		
29/7/2011	✓			Overcast		
2/8/2011	✓			Fine	29.5C	157.6mm
9/8/2011	✓			Overcast		
19/8/2011	✓			Fine		
26/8/2011	✓		✓	Fine		
29/8/2011		✓		Overcast		
30/8/2011	✓			Fine		
6/9/2011	✓			Fine	28.0 C	123.1 mm
16/9/2011	✓			Fine		
20/9/2011	✓		✓	Fine		
27/9/2011		✓		Overcast		
30/9/2011	✓			Overcast		

*no site inspection was conducted in June 2011 because no actual works activities other than the site preparation and site survey for commencement of works were implemented on site.



Appendix H Average Height of Mangrove Seedlings during the Reporting Quarter



Appendix I Summary of Waste Disposal in the Reporting Quarter

Type of Waste	Disposal Site	Disposed Quantity	Remark
Inert C&D waste	TKO Area 137 Fill Bank	293.6 tonnes	Soil, crushed rock
Non-Inert C&D waste	SENT	13.86 tonnes	Fell tree
Non-Inert C&D waste	SENT	3.16 tonnes	Rubbish

Appendix J Summary of Status of Environmental Permits/Licenses

Description	License/Permit/ Acc. No. #/Letter Ref. No.	License/ Permit Holder*	Date of Issue	Date of Expiry	Status/ Remarks
Environmental Permit	Permit No. EP-410/2010	HKFYG	10 Jan 2011	-	Issued
AFCD Letter for Works Partly Within Sai Kung Country Park	(3) AF GR CPDA SKW/33/2005	HKFYG	7 Feb 2011	Jan 2013	Issued
Tree Removal Applications	(18) in LM(3) to DLO/SK SX 1557(Pt. 5)	HKFYG	3 May 2011	-	Approved
Billing Account for Disposal of Construction Waste	7013108	KCE	30 Jun 2011	-	Issued
Registration of Chemical Waste Producer	WPN No. 5113-811-K2905-05	KCE	7 Jul 2011	-	Completed
WPCO Effluent Discharge License	-	KCE	-	-	In Progress

*HKFYG = The Hong Kong Federation of Youth Groups;
KCE = Konwall Construction and Engineering Co. Ltd.

Appendix K Cumulative Log of Complaints and Summons/Prosecutions

Reporting Month	No. of complaints in Reporting Month	No. of Summons/Prosecutions in Reporting Month
July 2011	0	0
August 2011	0	0
September 2011	0	0
Overall Total	0	0