

Contract No. : EP/SP/52/06
Development of EcoPark in Tuen Mun Area 38

ENVIRONMENTAL MONITORING AND AUDIT

MONTHLY EM&A REPORT for

JULY 2006

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APPROVAL SHEET

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EXECUTIVE SUMMARY

This is the first monthly Environmental Monitoring and Audit (EM&A) Report for the Environmental Protection Department Contract No. EP/SP/52/06 entitled “Development of an EcoPark in Tuen Mun Area 38”. (Environmental Permit No. EP-226/2005)

This report contains the results and findings of site inspection activities and EM&A works carried out by the Environmental Team (ET) of the Works Contractor as required in the contract during July 2006.

The site activities in the reporting period mainly consisted of site clearance, site formation, excavation works and construction of the site office.

Haul roads were sprayed regularly with water for dust mitigation. Hoarding was erected at the site egress and aligned along the site boundary along Lung Mun Road. Silted discharge was observed at the Marine Front due to severe weather conditions. Accumulative rainwater found in some locations at site during the site inspections. There was no disposal of inert C&D materials, C&D waste and chemical waste in the reporting month. No substantial Air or Noise impact was noted.

The majority of work activities and site mitigation measures were in compliance with the environmental protection regulations and contract requirements. Only minor deficiencies were found during the site inspections of July 2006. There were no complaint received or notification of summons or successful prosecution during July 2006.

The planned activities for August and September 2006 with regard to development of EcoPark consist of:

- 1) Construction of Site Office
- 2) Excavation and Site Formation Works
- 3) Construction of Electrical Sub-stations
- 4) Construction of Drainage and Sewerage
- 5) Construction of Administration Building

1. BASIC PROJECT INFORMATION

1.1 Introduction

This is the first monthly Environmental Monitoring and Audit (EM&A) Report for the Environmental Protection Department Contract No. EP/SP/52/06 entitled “Development of EcoPark in Tuen Mun Area 38”. The site layout plan was shown in Appendix 1. The report was prepared by the Environmental Team, Environmental Pioneers & Solutions Limited, of the Works Contractor, Kaden Construction Limited. The report is to be submitted to the Works Contractor, the Engineer and the Environmental Protection Department for the project.

This report presents the results of the environmental monitoring of the project activities conducted during the month of July 2006. This included regular site inspections once per week for verification of implementation of the mitigation measures as recommended in the EM&A Manual and the Contractor’s Environmental Management Plan (EMP).

Phase 1 of the construction works has already commenced in July 2006 and is anticipated to complete on June 2007.

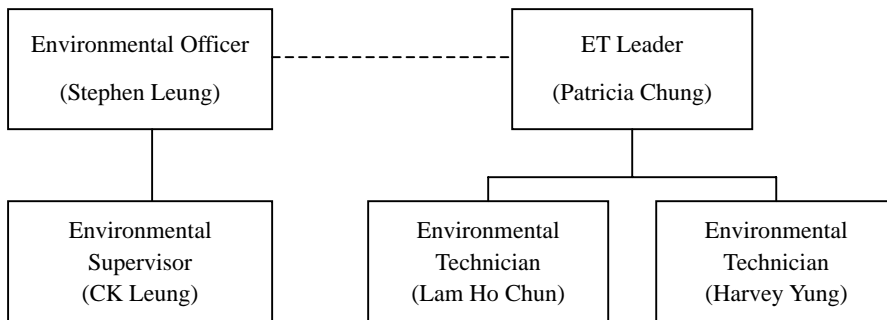
The contact person and telephone number of key personnel for the captioned project are shown in Appendix 1.

1.2 Project Organization and Management

The Works Contractor has commissioned Environmental Pioneers & Solutions Limited as the Environmental Team, which comprises the environmental team leader and the environmental technicians to undertake the environmental monitoring and audit work for this project. The project Organization Chart of Environmental Team is shown in Figure 1.2.

Figure 1.1 Organization Chart of Environmental Team

Environmental Team Organization Chart



2 SUMMARY OF WORK ACTIVITIES AND CONSTRUCTION STATUS

Works undertaken during the month

A summary of the site installation works in this month, with the information of locations, activities, equipment/materials and dates of occurrence, is provided by the Contractor, as shown in Table 2.1.

Table 2.1: Work Activities for July 2006

Item	Work Activities & Location	Date of Occurrence
1	Construction and fitting-out of site office	10 July – 31 July 2006
2	Excavation and site formation works	3 July – 31 July 2006
3	Construction of Electrical Sub-stations	10 July – 31 July 2006
4	Construction of Drainage & sewerage	10 July – 31 July 2006
5	Construction of Administration Building	10 July – 31 July 2006

Machineries		
	Equipment/ Plant	Quantity
1	Mobile Crane	2
2	Excavator	23
3	Generator	8
4	Air Compressor	2
5	Roller	6
6	Loader	2
7	Grab Lorry	2
8	Crane Lorry	2
9	Water Truck	1
10	Dump Truck	5

P.S. As informed by the Contractor, most equipment are mobile site subject to work progress

Future Key Issues

The Contractor has provided an updated construction program in Table 2.2 to show the planned activities for the coming three months (August – October 2006). The anticipated environmental issues are summarized as follow:

Table 2.2 Construction Program and Anticipated Environmental Issues		
Item	Works	Anticipated Environmental Issues
1	Construction and fitting-out of site office	- Generation of waste from packaging materials and other domestic/ general wastes - Domestic sewage from site office
2	Excavation and site formation works	- Generation of C&D Waste; excavated material should be reused as much as practicable - Dust may be generated; the wheel washing machine

		<ul style="list-style-type: none"> should be in operation - Haul road should be sprayed regularly - Stagnant water should be removed - Mosquito mitigation measures should be implemented
3	Construction of Electrical Sub-station	- Generation of waste from packaging materials and C&D wastes
4	Construction of drainage & sewerage	<ul style="list-style-type: none"> - Generation of C&D Waste; excavated material should be reused as much as practicable - Dust may be generated; the wheel washing machine should be in operation
5	Construction of Administration Building	- Generation of waste from packaging materials and C&D wastes

The site inspection schedule for the next month (August 2006) is designated on 10, 17, 24, 31 August 2006.

3 STATUS OF ENVIRONMENTAL PROTECTION AND SITE INSPECTIONS

Environmental site inspections are required to inspect the construction activities of the Development of EcoPark in order to ensure that appropriate environmental protection and pollution control mitigation measures are properly implemented

The initial site inspection was conducted on 4 Aug 2006.

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

The findings and results of site inspections are provided as follows:

Date	Observations	Advice from ET	Outcome	Closing Date
4 Aug 06	Stagnant water was found in open area at site	Fill the area or remove the stagnant water regularly in uneven surface and pits at site to prevent mosquito breeding.	The Contractor has regularly pumped away the water and sprayed pesticides weekly for mosquito prevention	4 Aug 06
4 Aug 06	Silted discharge was observed at the Marine Front due to severe weather conditions	Provide silt removal sand bags and other measures at channels and discharge point to enhance filtering.	To be observed in the next reporting period	--

Air Dust

Haul road occasionally appeared dry. Water spraying by a water-truck was observed. One automatic wheel washing facility was installed at the site exit but electric installation is still awaiting.

Noise

The major noise source was vehicle movement, rock excavation and breaking in the EcoPark. Since the nearby NSRs were remote, the noise impact was minimal. There was no specific observation noted regarding noise issue.

Surface Water Quality

Water ponding was found in open area at site. The Contractor was reminded to fill the area or remove the stagnant water regularly in uneven surface and pits at site to prevent mosquito breeding. The said water was directed and discharged at sedimentation channel with coarse silt removal facilities.

Silted discharge was observed at the Marine Front due to severe weather conditions (typhoon). The Contractor will provide silt removal sand bags at channels to enhance filtering of discharge.

Chemical toilets (4 nos.) have been provided by a licensed contractor, of which sewage generated is collected weekly without causing contamination on surface water. The Contractor is currently applying for the Effluent Discharge License.

Visual and Landscape Impact

Hoarding was erected at the site egress and aligned along the site boundary along Lung Mun Road. Hoardings were specially designed to be movable for future re-use in other locations.

During site clearance, trees are relocated to be replanted for landscaping in the future in EcoPark.

Waste / Chemical Waste

As advised by the Contractor, there was no disposal of inert C&D materials, C&D waste and chemical waste in the reporting month. Separate waste collection bins will be made available for collecting aluminum cans, waste paper and plastic bottles etc. when the site office is erected in August 2006.

A waste storage area will be provided for the storage of general waste and chemical wastes. The Contractor has provided sufficient drip trays for all (4 nos.) temporary electricity generators at site. These drip trays should be covered by tarpaulin sheet to minimize rainfall accumulation.

Construction activities that will generate significant amount of C&D wastes include site clearance, site formation, superstructure work and packaging materials.

Excavated materials are reused as back-fill material to balance cut and fill and hence reduce the generation of materials. Surplus materials are returned to stock in centralized area with suitable protective measures.

Materials are recycled and re-used at site as much as practicable to minimize waste generation. Timbers are recycled to make temporary tools and access ladders etc. Excavated rocks, concrete and asphalts are stored for future re-use in land formation and structural construction etc. Wasted tree branches are collected for recycling in future in processes such as mulching.

Registered waste collectors will be arranged to collect and transport the wastes whenever necessary.

As informed by the Contractor, no waste disposal was recorded in the reporting month. A table as shown below is designed for future reporting. Contractor has been reminded to keep good record at site in order to have a clear presentation of waste disposal.

Type of Waste	Disposal Site	Quantity	Remarks
--	--	--	No waste disposal recorded in the reporting month

4 SUMMARY OF ENVIRONMENTAL PERMIT AND LICENSES

ET has checked with the Contractor for the status of all environmental permits and licenses for this project as at July 2006, which is summarized in the following table. ET will follow the application process of the outstanding permits / licenses and will provide suitable assistance whenever appropriate.

Table 4.1

Description	License / Permit No.#	Date of Issue	Date of Expiry	Status/Remarks
Environmental Permit	EP-226/2005	9-Sept-2005	--	Issued
Registration of Waste Producer	5111-421-K2869-02	27-Jul-2006	--	Issued
Construction Noise Permit	--			In Progress
Water Discharge Permit	--			In Progress

5 CUMULATIVE LOG OF COMPLAINTS AND REMEDIAL ACTION

There was no complaint received in association with installation activities during July 2006. The cumulative log of complaints is referred in Appendix 3.

6 CUMULATIVE LOG OF NOTIFICATION OF SUMMONS AND PROSECUTIONS

No notification of summons and no prosecutions occurred during July 2006.

7 CONCLUSION

There is no summon nor prosecutions reported during July 2006.

Deficiencies were found that accumulated rainwater was found in uneven surface and pits and manholes at some locations of the site.

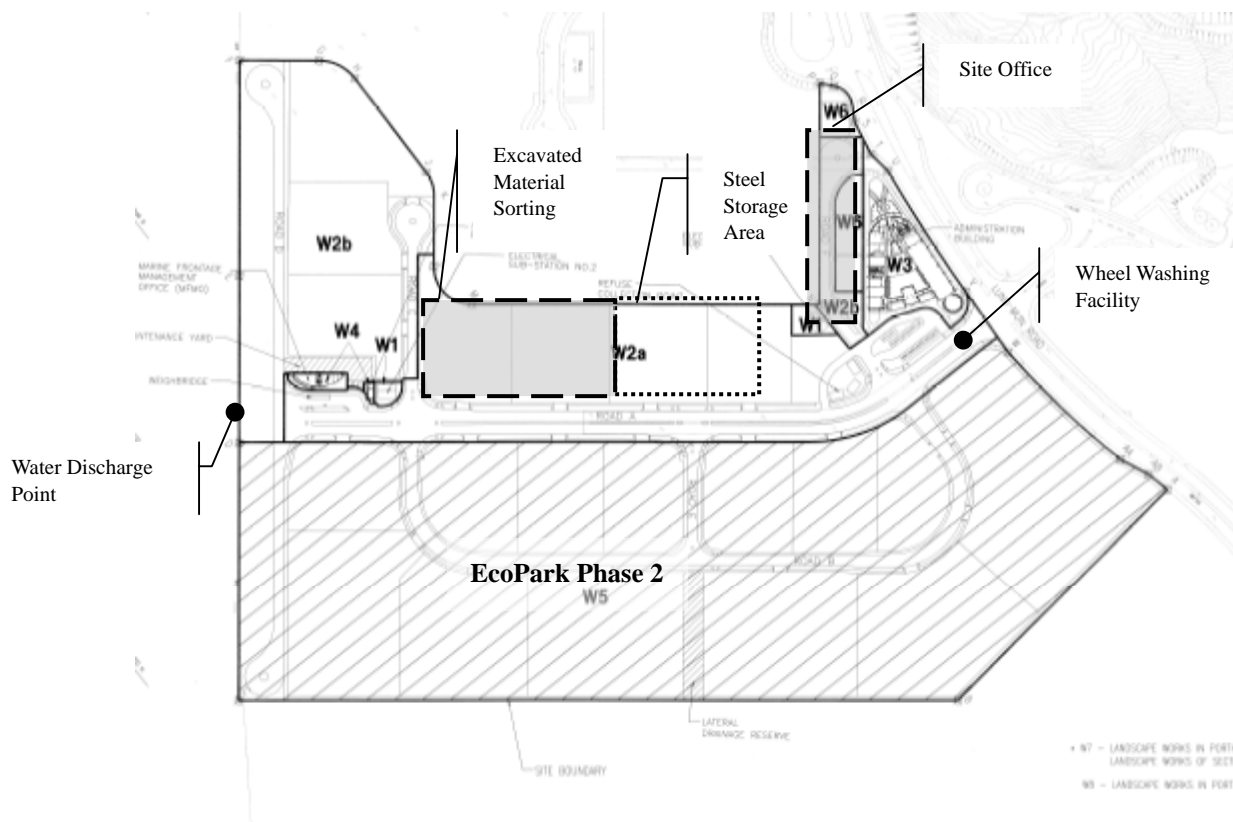
The contractor was advised to pay more efforts on environmental concerns and awareness such as the accumulated rainwater or stagnant water found at site that could cause the problem of mosquito breeding. The contractor was reminded to regularly spray water to haul road to mitigate dust.

The Contractor was reminded to establish the waste management and record system such as allocation of waste storage areas and setting up of trip ticket system as proposed in the Environmental Management Plan.

In general, the environmental condition at site is acceptable in July 2006.

APPENDIX 1

SITE LAYOUT PLAN



APPENDIX 2**THE CONTACT PERSONS, TELEPHONE NUMBERS OF KEY PERSONNEL
FOR DEVELOPMENT OF ECO PARK IN TUEN MUN AREA 38**

Company/Department	Name	Position	Telephone
Scott Wilson Ltd.	Mike Bains	Independent Environmental Checker	--
Scott Wilson Ltd.	Mr. Michael Lo	Senior Resident Engineer	6290 8860
Scott Wilson Ltd.	Mr. Andy Cheung	Resident Engineer	6111 9703
Scott Wilson Ltd.	Mr. C S Lam	Senior Inspector of Works	9861 8011
Kaden Construction Limited	Mr. K M Book	Project Manager	9193 8680
Kaden Construction Limited	Mr. Stephen Leung	Section Agent	9071 7657
Environmental Pioneers & Solutions Limited	Miss. Patricia Chung	Environmental Team Leader	2185 0123
Environmental Pioneers & Solutions Limited	Mr. Harvey Yung	Environmental Technician	2185 0172
Environmental Pioneers & Solutions Limited	Mr. Lam Ho Chun	Environmental Technician	2185 0154

APPENDIX 3**CUMULATIVE LOG OF COMPLAINTS**

Environmental Parameters	No. of Outstanding Complaints	No. of Complaints received in July 2006	Cumulative No. of Complaints received since the Commencement of Project
Air	0	0	0
Noise	0	0	0
Water	0	0	0
Waste	0	0	0
Total	0	0	0

DETAILS OF COMPLAINTS AND REMEDIAL ACTIONS

Log Ref.	Date of Complaint received	Location	Complainant /Date	Details of Complaint	Investigation /Mitigation Action	Investigated by/ Date
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