Hong Kong International Theme Parks Limited

AECOM

EP-01/097/2001/C

Provision of EM&A Services at Water Recreation Centre

Monthly EM&A Report No.91 (16 February 2013 to 15 March 2013)

March 2013

	Name	Signature
Prepared & Checked:	Y W Fung	
Reviewed & Approved:	Y T Tang	

Version:	0	Date: 21 March 2013

Disclaimer

This report is prepared for Hong Kong International Theme Parks Limited and is given for its sole benefit in relation to and pursuant to EP-01/097/2001/C and may not be disclosed to, quoted to or relied upon by any person other than Hong Kong International Theme Parks Limited without our prior written consent. No person (other than Hong Kong International Theme Parks Limited) into whose possession a copy of this report comes may rely on this report without our express written consent and Hong Kong International Theme Parks Limited may not rely on it for any purpose other than as described above.

AECOM Asia Co. Ltd.
11/F, Grand Central Plaza, Tower 2, 138 Shatin Rural Committee Road, Shatin, NT, Hong Kong
Tel: (852) 3105 8686 Fax: (852) 2317 7609 www.aecom.com

Water Recreation Centre (Monthly EM&A Report No. 91)

Submitted by AECOM Asia Co. Ltd.
on 18 March 2013

This is to verify that:

The Water Recreation Centre Monthly EM&A Report No. 91

Submitted by: AECOM Asia Co. Ltd.

On: 18 March 2013

Has been verified by the undersigned.

Signed

Ir Dr Anne Watker-Zeris
Independent Environmental Checker (IECK)
Retained by Hongkong International Theme Parks Ltd
pursuant to EP No. EP-01/97/2001/C

Date 19 March 2013

STABLE OF CONTENTS

Page

EXECUTIVE SUMMARY I

Environmental Monitoring Works I
Implementation Status of Environmental Mitigation Measures I
Environmental Complaints and Prosecution I
Future Key Issues I

1. INTRODUCTION 1

Background 1
Project Organisation 1
Summary of the EM&A Requirements 1

2. ENVIRONMENTAL AUDIT 2

Implementation Status of Environmental Mitigation Measures 2
Status of Environmental Licensing and Permitting 2
Waste Management 2
Implementation Status of Environmental Complaint Handling Procedures 3

3. CONCLUSIONS AND RECOMMENDATIONS 4

Conclusions 4
Recommendations 4

List of Tables

Table 2.1 Summary of Environmental Notification, Licensing and Permit Status 2

List of Figures

Figure 1.1 Location of Water Recreation Centre
Figure 1.2 Project Organization

List of Appendices

Appendix A Contact of Key Environmental Personnel
Appendix B Summary of Environmental Mitigation Implementation Schedule
Appendix C Complaint Flow Diagram and Complaint Log

EXECUTIVE SUMMARY

This is the ninety-first monthly Environmental Monitoring and Audit (EM&A) report prepared by AECOM Asia Co. Ltd. (integrating the operation of ENSR Asia (HK) Ltd.), the designated Environmental Team (ET), for the project "Provision of EM&A Services at Water Recreation Centre". The Water Recreation Centre (WRC) commenced operation on 16 August 2005.

This report presents the results of environmental audit works conducted between 16 February 2013 and 15 March 2013.

Environmental Monitoring Works

Environmental Licensing and Permitting

Environmental permit (No. EP-01/097/2001/C) was issued to the Hongkong International Theme Parks Limited (HKITP) for the operation of WRC. HKITP has been registered as chemical waste producer (Waste Producer No. 9499-973-H3095-01).

Implementation Status of Environmental Mitigation Measures

Monthly environmental site inspection was carried out on 12 March 2013. Environmental mitigation measures as recommended in the EIA report, Operational EM&A Plan and EP-01/097/2001/C were properly implemented.

Environmental Complaints and Prosecution

No complaint, summons or prosecution related to environmental issues was made against the Project in the reporting period.

Future Key Issues

The operator of WRC is reminded to continue to implement measures as recommended in the EIA Report, Operational EM&A Plan and EP-01/097/2001/C.

1. INTRODUCTION

Background

1.1 AECOM Asia Co. Ltd. (integrating the operation of ENSR Asia (HK) Ltd.) (hereinafter referred as the "ET") was appointed by Hongkong International Theme Park Ltd. (HKITP) (hereinafter referred as the "Operator") to carry out operational Environmental Monitoring and Audit at the Water Recreation Centre since its operation on 16 August 2005. Under the requirements of Section 4 of the Environmental Permit EP-01/097/2001/C, EM&A programme is required to be implemented in accordance with the Operational EM&A Plan approved by the Environmental Protection Department (EPD) on 31 August 2005.

1.2 The WRC is a portion of the Contract for "Theme Park and Associated Infrastructures at Penny's Bay", which encompasses an area of approximately 12 ha and contains a multi-function artificial lake, water-based and land-based recreational facilities and ancillary facilities. Apart from recreation purpose, the lake water is a source of irrigation water for the entire Penny's Bay. The location of the WRC is given in Figure 1.1.

1.3 Following approval of the EIA, an Environmental Permit (EP) was issued to the Civil Engineering Department (CED) (now Civil and Engineering Development Department (CEDD) and the subsequent variation of the permit no. EP-097/2001/B and EP-138/2002/C contain the requirements and obligations on the Environmental Monitoring and Audit (EM&A) during the operation of the WRC. Under the Contract for "Theme Park and Associated Infrastructures at Penny's Bay", the WRC and ancillary facilities were designed and constructed under the supervision of CEDD and the WRC would be turned over from CEDD to HKITP for operation upon completion of construction. Environmental permit no. EP-01/097/2001/C was issued to the HKITP for the operation of WRC.

1.4 This report presents the results of environmental audit works conducted between 16 February 2013 and 15 March 2013.

Project Organisation

1.5 The structure of the environmental management team is shown in Figure 1.2. Contacts of key environmental staff of the Project are shown in Appendix A.

Summary of the EM&A Requirements

1.6 The latest EM&A programme requires environmental audit at the WRC. The purpose of the audit was to ensure all environmental mitigation measures, as recommended in the EIA report, Operational EM&A Plan and EP-01/097/2001/C, were properly implemented.

1.7 Site audit and the status of environmental licensing and permits are described in Section 2.

1.8 Summary of the advice on the implementation status of environmental protection and pollution control/mitigation measures is summarised in Section 2 of the Report.

2. ENVIRONMENTAL AUDIT

Implementation Status of Environmental Mitigation Measures

2.1 Site audit was carried out on a monthly basis to monitor environmental issues to ensure that all mitigation measures were implemented timely and properly.

2.2 Monthly site inspection was carried out on 12 March 2013. Environmental mitigation measures for water quality, waste management, landscape and visual, as recommended in the EIA report, Operational EM&A Plan and EP were properly implemented. There was no specific observation requiring following up action. In general, the condition of the WRC was satisfactory:

- No floating refuse was observed.
- No uncontrolled surface runoff into the lake was observed.
- No algicide was applied to the WRC.
- No discharge was made from the WRC into marine water.
- No improper storage of oil/chemicals was observed.
- Environmental Permit was kept in the site office and was available for inspection upon request.

2.3 A summary of the Environmental Mitigation Implementation Schedule (EMIS) is presented in Appendix B.

Status of Environmental Licensing and Permitting

2.4 All permits/licences/notifications obtained as of the reporting period are summarised in Table 2.1

Table 2.1 Summary of Environmental Notification, Licensing and Permit Status

Permit No.	Valid Period		Description	Status
	From	To		
Environmental Permit				
EP-01/097/2001/C	19 Oct. 05	-	Operation of an approximately 32 ha water recreation centre with a 12 ha multi-function artificial lake, water-based and land-based recreational facilities and ancillary facilities	Valid
Chemical Waste Registration				
9499-973-H3095-01	29 Jul. 05	-	Theme Park at Penny's Bay	Valid

Waste Management

2.5 Waste management of WRC was implemented as stipulated in the Waste Management Plan.

2.6 As waste management of WRC was undertaken as part of the overall Theme Park Resort waste management scheme, records of waste handling and disposal would be reported in the Theme Park EM&A Report.

Implementation Status of Environmental Complaint Handling Procedures

2.7 Appendix C presents the environmental complaint flow diagram of the Project.

2.8 No complaint, summons or prosecution related to environmental issues was received or made against the Project in the reporting period.

3. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

3.1 Environmental audit was carried out on 12 March 2013 in accordance with the Operation EM&A Plan. No non-compliance was observed during the inspection. In general, the condition of the WRC was satisfactory.

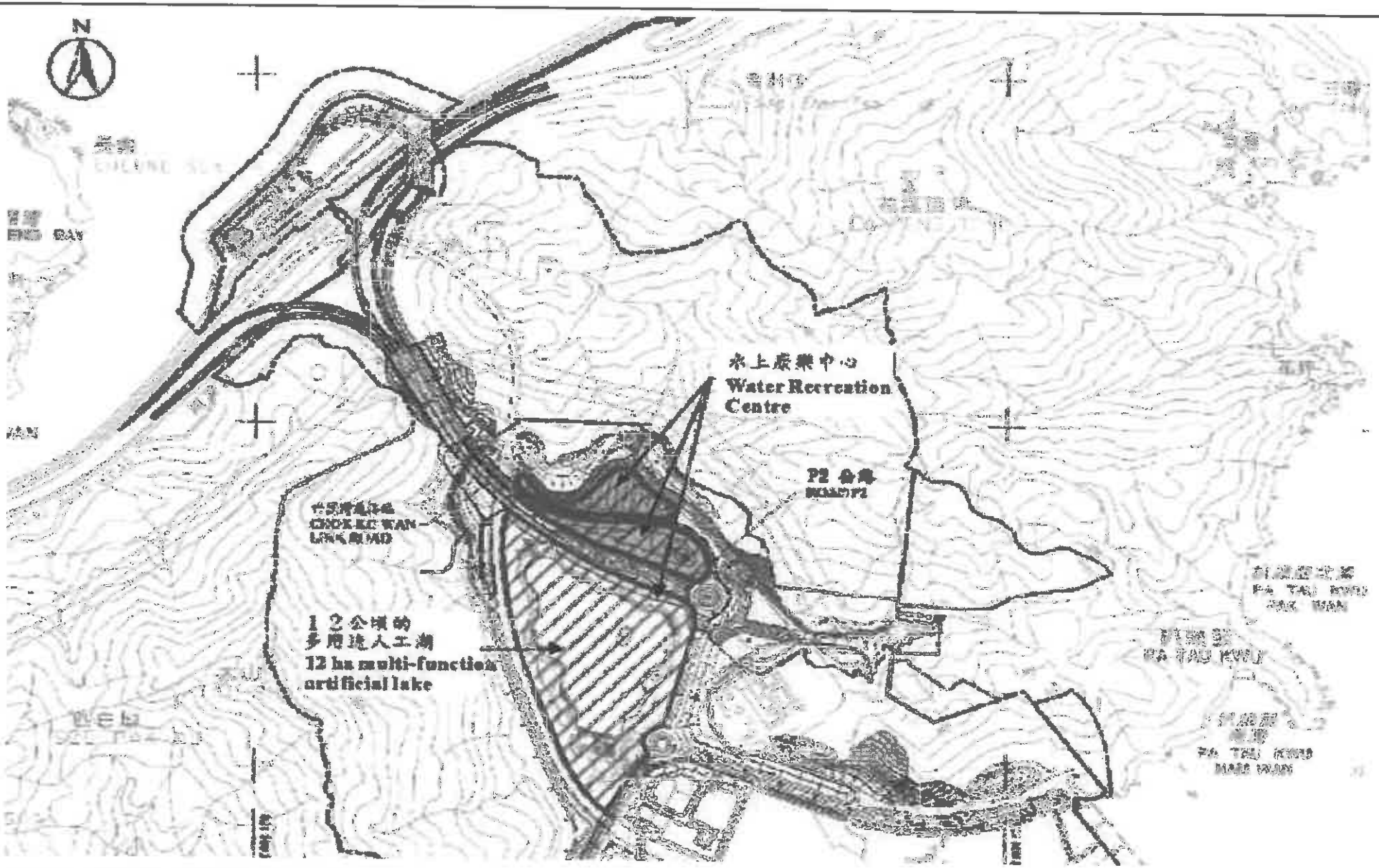
3.2 Environmental mitigation measures as recommended in the EIA Report, Operational EM&A Plan and EP were properly implemented.

3.3 No complaint, summons or prosecution related to environmental issues was made against the Project in the reporting period.

Recommendations

3.4 The operator of WRC is reminded to continue to implement measures as recommended in EIA Report and EP.

FIGURES



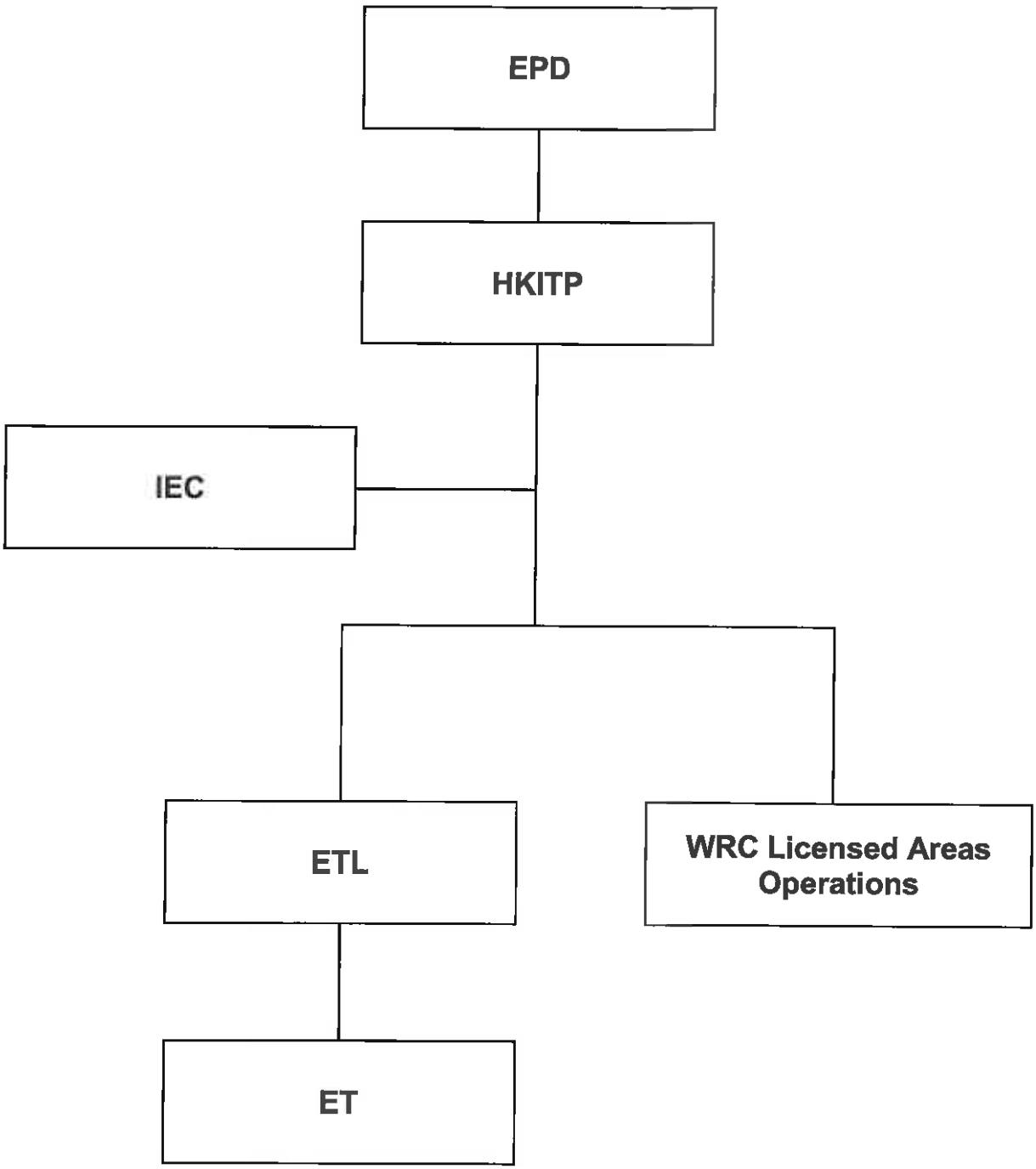
ENSR | AECOM

FEP-01/097/2001/C

Provision of EM&A Services at Water Recreation Centre

Location of Water Recreation Centre

SCALE	N.T.S.	DATE	2007
CHECK	EWNY	DRAWN	LLMC
JOB NO.	60016794	Figure No. 1.1	Rev -



ENSR | AECOM	FEP-01/097/2001/C Provision of EM&A Services at Water Recreation Centre **Project Organisation**	SCALE	N.T.S.	DATE	2007
		CHECK	EWNY	DRAWN	LLMC
		JOB NO.	60016794	Figure No. 1.2	Rev -

APPENDIX A
CONTACTS OF KEY ENVIRONMENTAL PERSONNEL

Appendix A: Contacts of Key Environmental Staff

	Name	Telephone	Fax
IEC			
Mott MacDonald			
Independent Environmental Checker	Dr. Anne Watker-Zeris	2828 5757	2827 1823
ET			
AECOM Asia Co. Ltd.			
Environmental Team Leader	Mr. Y T Tang	2893 1551	2891 0305
Environmental Scientist	Mr. Y W Fung	2893 1551	2891 0305

APPENDIX B
SUMMARY OF ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE

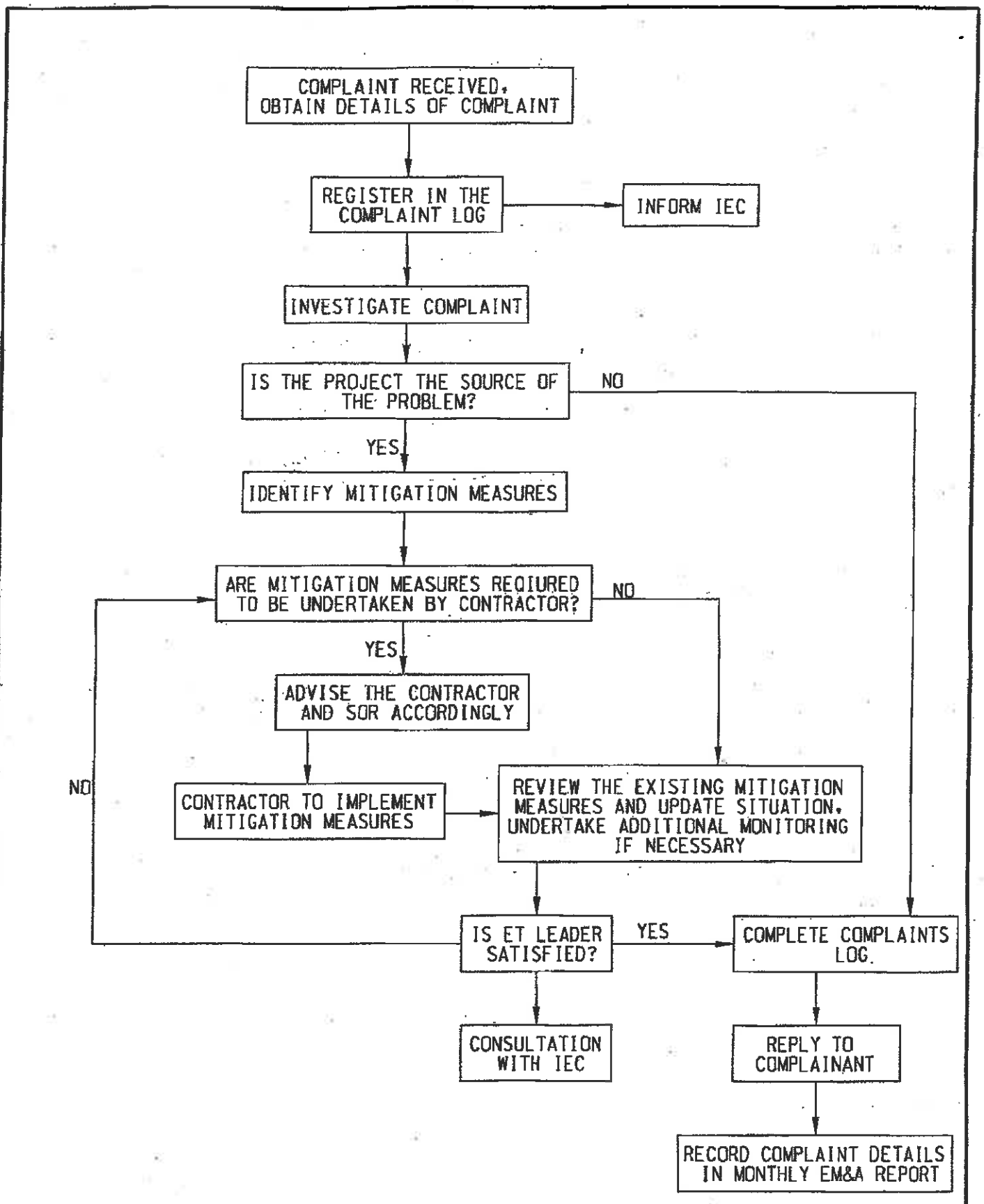
Appendix B — Summary of Environmental Mitigation Implementation Schedule

Reference	Mitigation Measures	Status
	Water Quality	
EIA Report 5.11.2	• The lake shall be lined with an impermeable liner. However, as such liners may have a limited life span, beyond which the performance may deteriorates, the liner shall be replaced once the manufacturer's specified lifespan is reached.	√
EIA Report 5.11.2	• Stormwater run-off from surrounding hillsides shall pass through silt traps prior to entering the artificial lake to prevent siltation. The silt traps shall be designed to have adequate capacity to retain any silt/sediment contained within the stormwater. The silt traps shall be frequently maintained/cleaned to prevent a deterioration in performance.	√
EIA Report 5.11.2, EP 3.7	• Should the quality of the water in the Tai Lam Chung Reservoir deteriorate below the present levels an alternate supply of water, of a quality at least as good as that within the Tai Lam Chung Reservoir, shall be used to 'top up' the water within the lake.	N/A
EIA Report 5.11.2, EP 3.8, 3.9	• If it becomes necessary to add an algicide to the lake to control algal growth, the algicide shall be biodegradable with a short half life of three days or less. During use of the algicide discharge of the lake water to the marine waters shall be prohibited, until the algicide has decayed. The algicide shall not be used during periods of heavy rainfall when overflow of the lake is possible.	N/A
EIA Report 5.11.2, EP 3.6	• Stormwater from any urban/developed areas shall not be allowed to enter the lake as they may contain pollutants. Sewage effluent from the water recreation centre shall be transported to the sewerage mains for conveyance to the Siu Ho Wan STW.	√
EIA Report 5.11.2, EP 3.10	• Any fuel for motorised water sports vessels shall be stored in bunded areas, of at least 110% capacity of the largest fuel storage container to prevent any accidental spills entering the lake.	√
EIA Report 5.11.2	• Servicing of any water sports vessels shall be undertaken at suitable facilities away from the artificial lake. In the event that fuel or other petroleum products enter the lake, a suitable clean-up plan shall be implemented. The clean-up plan being devised by the operators of the water recreation centre and approved by EPD prior to the commencement of operations at the water sports centre.	√
	Waste	
EIA Report 5.11.2	• To minimise the potential adverse impacts to aesthetics and odour impacts, the HKITP should maintain floating refuse collection initiatives at both the coast of the Theme Park and within the artificial lake of the Water Recreation Centre.	√

Note:

√	Compliance of mitigation measure
×	Non-compliance of mitigation measures
•	Non-compliance but rectified
N/A	Not applicable

APPENDIX C
COMPLAINT FLOW DIAGRAM AND COMPLAINT LOG



ENSR | AECOM

FEP-01/097/2001/C
PROVISION OF ENVIRONMENTAL MONITORING & AUDIT SERVICES FOR WATER RECREATION CENTRE

COMPLAINT RESPONSE PROCEDURE

SCALE	N.T.S.	DATE	2007
CHECK	EWNY	DRAWN	LLMC
JOB NO.	60016794	APPENDIX.	C
		REV	-

K:/SO7105/DRAWING/REPORTS/FLOW_DIAGRAM.DGN