Provision of Environmental Monitoring and Audit (EM&A) Services at Water Recreation Centre

Monthly EM&A Report No. 207

November 2022

Submitted to

Hong Kong International Theme Parks Limited

Prepared By

Meinhardt Infrastructure and Environment Ltd

Water Recreation Centre (Monthly EM&A Report No. 207)

Submitted by Meinhardt Infrastructure and Environment Ltd.
on 18th November 2022

This is to verify that:

The Water Recreation Centre Monthly EM&A Report No. 207

Submitted by: Meinhardt Infrastructure and Environment Ltd.

On: 18th November 2022

Has been verified by the undersigned.

Signed

Julia Chan
Independent Environmental Checker (IECK)
Retained by Hong Kong International Theme Parks Ltd
pursuant to EP No. EP-01/97/2001/C

Date 21st November 2022

Date	Revision	Prepared By	Checked By	Approved By
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EXECUTIVE SUMMARY

This is the 207th monthly Environmental Monitoring and Audit (EM&A) report prepared by Meinhardt Infrastructure and Environmental Limited (MIEL), 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 October 2022 and 15 November 2022.

Environmental permit (No. EP-01/097/2001/C) was issued to the Hong Kong 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).

Monthly environmental site inspection was carried out on 11 November 2022. Environmental mitigation measures as recommended in the EIA report, Operational EM&A Plan and EP-01/097/2001/C were properly implemented.

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

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

1.1 Background

1.1.1 Meinhardt Infrastructure and Environmental Limited (hereinafter referred as the "ET") was appointed by Hongkong International Theme Parks Ltd. (HKITP) (hereinafter referred as the "Operator") to carry out operational Environmental Monitoring and Audit at the Water Recreation Centre (WRC). 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.

1.1.2 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**.

1.1.3 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.

1.1.4 This report presents the results of environmental audit works conducted between 16 October 2022 and 15 November 2022.

1.2 Project Organisation

1.2.1 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**.

1.3 Summary of the EM&A Requirements

1.3.1 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.

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

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

2 Environmental Audit

2.1 Implementation Status of Environmental Mitigation Measures

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

2.1.2 Monthly site inspection was carried out on 11 November 2022. 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 were no specific observations requiring follow 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.

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

2.2 Status of Environmental Licensing and Permitting

2.2.1 All permits/licenses/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

2.3 Waste Management

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

2.3.2 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.

2.4 Implementation Status of Environmental Complaint Handling Procedures

2.4.1 **Appendix C** presents the environmental complaint flow diagram of the Project.

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

3 Conclusion and Recommendation

3.1.1 Environmental inspection was carried out on 11 November 2022 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.

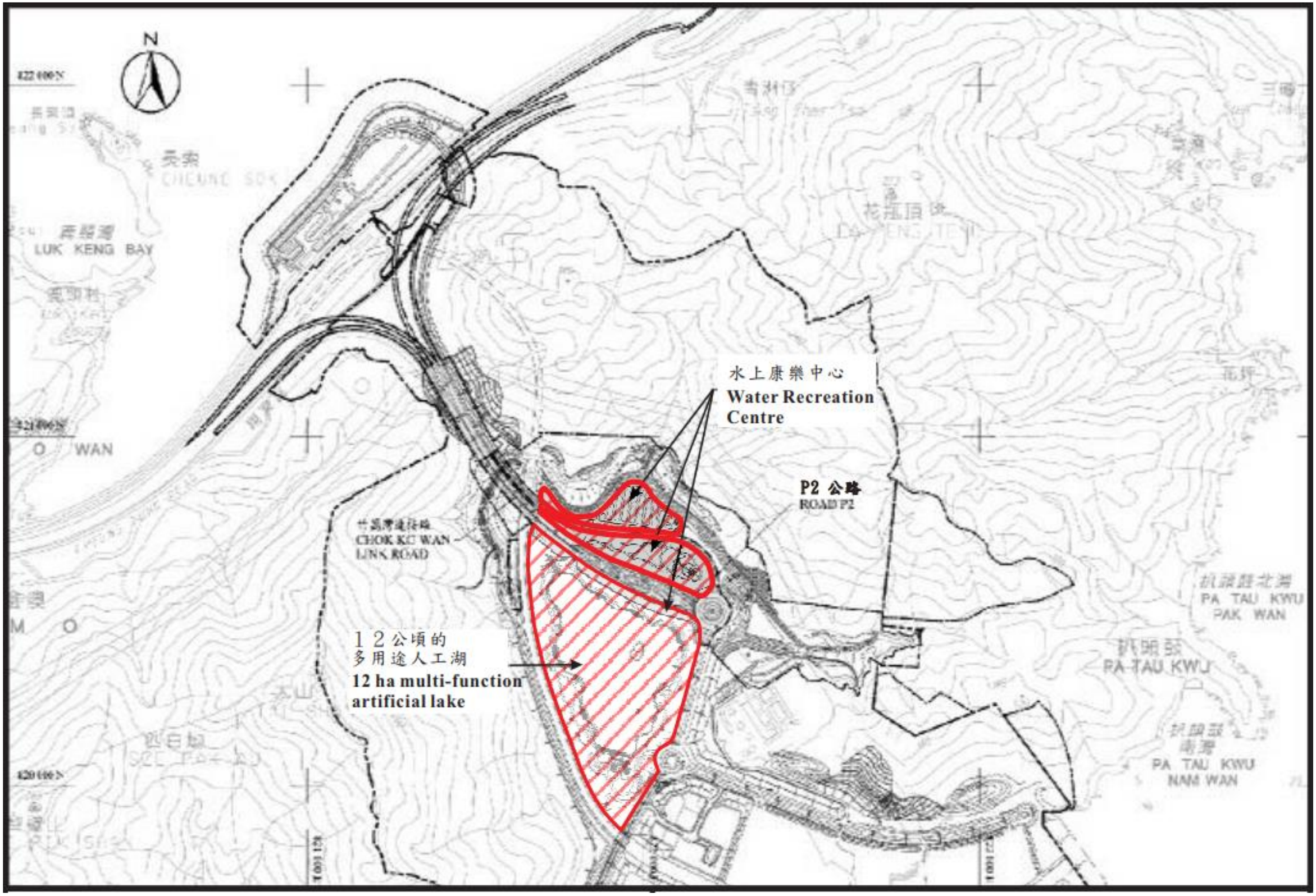
3.1.2 Environmental mitigation measures as recommended in the EIA Report, Operational EM&A Plan and EP were properly implemented.

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

3.2 Recommendations

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

Figures



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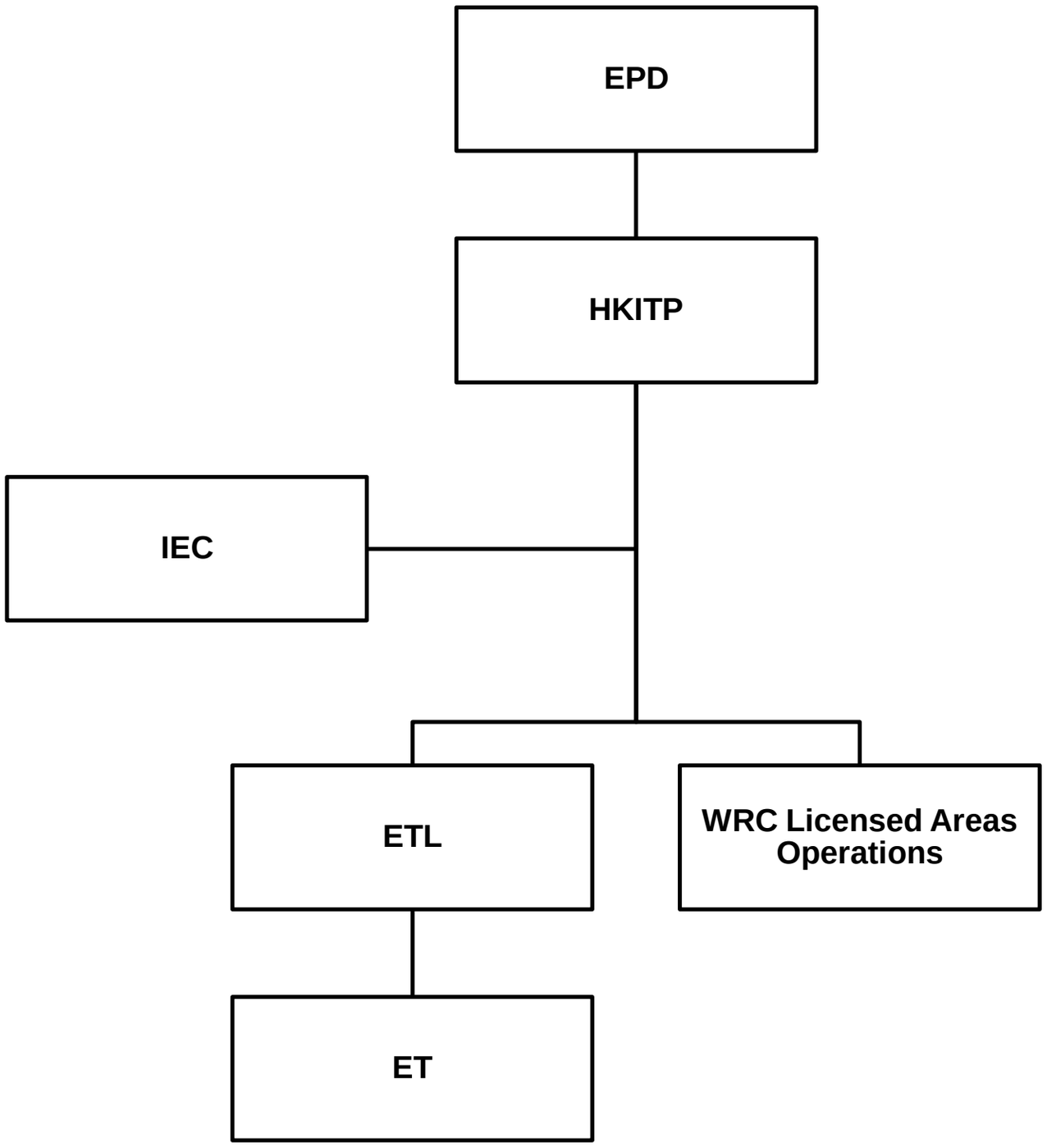
Provision of EM&A Service at Water Recreation Centre
Project Location

Figure 1.1

Scale: As shown



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Provision of EM&A Service at Water Recreation Centre
Project Organisation Chart

Figure 1.2

Scale --

Appendix A
Contacts of Key Environmental Staff

Appendix A – Contacts of Key Environmental Staff

	Name	Telephone	Fax
IEC			
Mott MacDonald			
Independent Environmental Checker	Ms. Julia Chan	2828 5757	2827 1823
ET			
Meinhardt Infrastructure and Environment Limited			
Environmental Team Leader	Ms. Joyce Wong	2859 8138	2540 1580

Appendix B
Environmental Mitigation Implementation Schedule (EMIS)

Appendix B — Summary of Environmental Mitigation Implementation Schedule

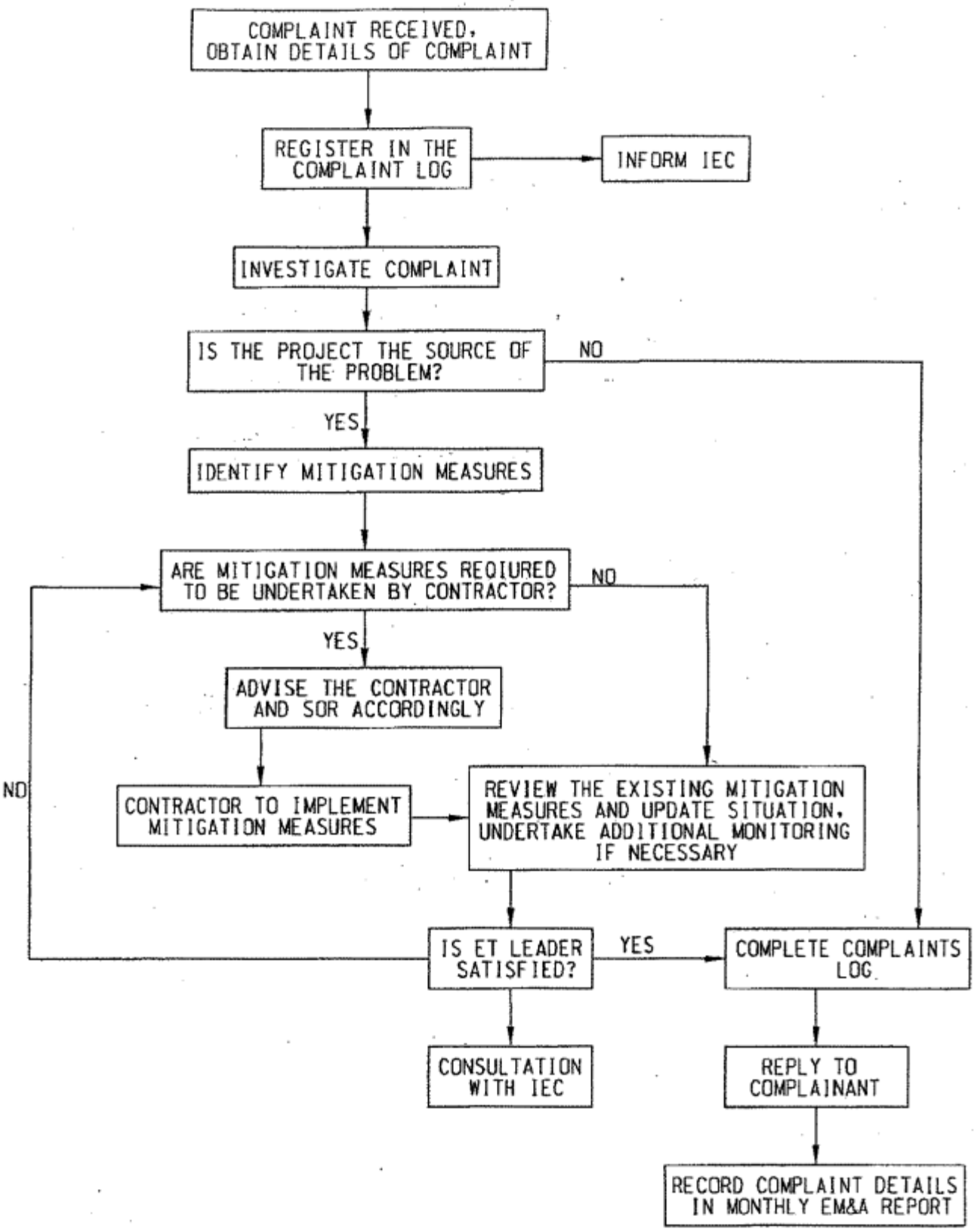
Reference	Mitigation Measures	Status
	Water Quality	
EIA Report 5.11.2	• The lake shall be lined with an impermeable liner. However, as such liners may have a limited life span, beyond which the performance may deteriorates, the liner shall be replaced once the manufacturer's specified lifespan is reached.	√
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.	N/A
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
Environmental Complaint Flow Diagram

Appendix C – Environmental Complaint Flow Diagram



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