

**MANSFIELD RESORT LUXURY ESTATE, SPA & CLUB HOUSE
AT ANSE LA RAIE**

ENVIRONMENTAL IMPACT ASSESSMENT REPORT

TABLE OF CONTENTS

0	EXECUTIVE SUMMARY	0-1
1	FOREWORD	1-1
2	INTRODUCTION	2-1
	2.1 THE PROJECT AT A GLANCE	2-1
	2.2 THE PROMOTER AND PROJECT TEAM	2-1
	2.2.1 The Promoter	2-1
	2.2.2 The Project Team	2-1
	2.3 THE TIMEFRAME FOR DEVELOPMENT	2-1
	2.4 SCOPE AND METHODOLOGY OF THE ENVIRONMENTAL IMPACT ASSESSMENT	2-1
	2.5 LIAISON WITH MINISTRIES AND AUTHORITIES	2-2
	2.5.1 Liaison with Ministries	2-2
	2.5.2 Liaison with Authorities	2-2
	2.6 STRUCTURE OF THE EIA REPORT	2-3
3	ENVIRONMENTAL FRAMEWORK IN MAURITIUS	3-1
	3.1 THE ENVIRONMENTAL PROTECTION ACT 2002	3-1
	3.1.1 The Act	3-1
	3.1.2 The Requirement for Environmental Impact Assessment (EIA)	3-1
	3.2 OTHER MAIN APPLICABLE LEGISLATION AND POLICIES	3-2
	3.2.1 National Environmental Strategies	3-2
	3.2.2 The National Development Strategy 2003 & Planning Policy Guidance 2004	3-2
	3.2.3 Pamplemousses Riviere du Rempart Outline Planning Scheme	3-3
	3.2.4 The State Land Act 1856	3-4
	3.2.5 The Pas Géométriques Act 1874	3-5
	3.2.6 The Fisheries and Marine Resources Act 2007	3-5
	3.2.7 The National Biodiversity Strategic and Action Plan (2006-2015)	3-5
	3.2.8 Occupational Safety & Health Act, 2005	3-5
	3.2.9 Central Water Authority Act, 1991	3-5
	3.2.10 Waste Water Authority Act, 2000	3-6
	3.3 INTERNATIONAL TREATIES AND AGREEMENTS	3-6
4	PROJECT DESCRIPTION	4-1
	4.1 PROJECT CONCEPT	4-1
	4.1.1 Location and Site Analysis	4-1
	4.1.2 Master Plan – Design Approach	4-1
	4.2 ARCHITECTURAL BRIEF	4-2
	4.3 PLANNING FRAMEWORK	4-2
	4.3.1 Planning Instruments	4-2
	4.3.2 The Requirements of the Planning Policy Guidance	4-2
	4.3.3 PPG Plot Coverage Compliance & Breakdown of Areas	4-2
	4.3.4 Other PPG Compliance	4-3

4.4	MASTER SITE PLAN	4-3
4.4.1	Resort Villas	4-4
4.4.2	Luxury Villas	4-4
4.4.3	Main Building and Spa	4-4
4.4.4	Communal Pool & Pool Bar	4-4
5	PROJECT INFRASTRUCTURE & SERVICES	5-1
5.1	INFRASTRUCTURE	5-1
5.1.1	Entrance and Driveway	5-1
5.1.2	Stormwater Drainage Network	5-2
5.2	SERVICES	5-3
5.2.1	Cold Water Services	5-3
5.2.2	Hot Water Services	5-4
5.2.3	Pool Feature and Backwash Management	5-4
5.2.4	Irrigation	5-5
5.2.5	Wastewater Management	5-5
5.2.6	Electricity Supply	5-6
5.2.7	Energy Saving Devices	5-7
5.2.8	Telecommunications	5-8
5.2.9	Fire Fighting	5-8
5.2.10	Air Conditioning and Ventilation	5-8
5.2.11	Fire Alarm System	5-8
5.2.12	Solid Waste Management	5-8
6	BASELINE ENVIRONMENT	6-1
6.1	SITE DESCRIPTION	6-1
6.1.1	The Site	6-1
6.1.2	The Project Area	6-2
6.2	TERRESTRIAL ENVIRONMENT	6-2
6.2.1	Site Geology	6-2
6.2.2	Site Topography	6-3
6.2.3	Site Hydrogeology and Hydrology	6-4
6.2.4	Terrestrial Biodiversity	6-4
6.3	GENERAL CLIMATIC CONDITIONS	6-6
6.3.1	Wind Regime	6-6
6.3.2	Temperatures	6-7
6.3.3	Rainfall Regime	6-8
6.3.4	Cyclone and Natural Catastrophes	6-9
6.4	AIR QUALITY AND NOISE	6-9
6.4.1	Air Quality	6-9
6.4.2	Noise	6-9
6.5	BUILT ENVIRONMENT	6-10
6.5.1	Socio-Cultural Conditions	6-10
6.5.2	Socio-Economic Conditions	6-10
6.6	TRANSPORT AND INFRASTRUCTURE	6-10
6.6.1	Transport	6-10
6.6.2	Infrastructure	6-11
6.7	CULTURAL AND HISTORICAL HERITAGE	6-11
7	PREDICTED ENVIRONMENTAL IMPACTS AND MITIGATING MEASURES	7-1
7.1	IMPACT IDENTIFICATION AND SCOPING	7-1
7.1.1	Introduction	7-1
7.1.2	Risk Assessment Matrix	7-1

7.1.3	Predicted Impacts without Mitigation Measures	7-1
7.2	IMPACT PREDICTION ON THE NATURAL ENVIRONMENT AND MITIGATING MEASURES	7-3
7.2.1	Noise Emissions	7-3
7.2.2	Dust Emissions	7-4
7.2.3	Surface Water Quality	7-4
7.2.4	Land Drainage	7-6
7.2.5	Waste Management to avoid ground and underground contamination and to protect public health	7-6
7.2.6	Risks of Accidental Spillage from Diesel Storage	7-9
7.2.7	Risks of Accidental Spillage from LPG Storage	7-9
7.2.8	Traffic Management	7-9
7.2.9	Training, Health & Safety measures	7-10
7.3	RESIDUAL IMPACTS WITH MITIGATION MEASURES	7-10
8	ENVIRONMENTAL MONITORING PLAN	8-1
8.1	Construction Phase	8-1
8.1.1	Monitoring	8-1
8.1.2	Maintenance	8-1
8.1.3	Environment Monitoring Plan at Construction Phase	8-1
8.2	Operation Phase	8-2
8.2.1	General Inspection/Audit	8-2
8.2.2	Maintenance	8-3
8.2.3	Environment Monitoring Plan at Operation Phase	8-3
9	CONCLUSION	9-1
10	REFERENCES	10-1

LIST OF APPENDICES

Appendix A	Administrative Documents
Appendix B	Architectural Data
Appendix C	Storm Water Management Plan
Appendix D	Photographs of the Study Area

LIST OF DRAWINGS

Architect

Master Plan

Consulting Engineers

Storm Water Network

Storm Water Drainage Details

Potable Water Network

Rain Water Downpipe Network

Sewer Reticulation

Electrical Reticulation

Land Surveyor

Location Plan

Site & Topographic Plan

LIST OF TABLES

Table 1: Summary of Residual Impacts after implementing of Mitigation Measures.....	0-3
Table 2: PPG Requirements	4-2
Table 3: Breakdown of Areas	4-3
Table 4: Breakdown of Potable Water Demand	5-4
Table 5: Wastewater and Treated Water Parameters.....	5-6
Table 6: Breakdown of Electrical Demand	5-7
Table 7: Volcanic Series.....	6-2
Table 8: General Geological Description, FAO/MSIRI	6-3
Table 9: Wetland Characteristics	6-6
Table 10: Mean Wind Speed - Pamplemousses	6-7
Table 11: Temperatures records – Pamplemousses.....	6-8
Table 12: Mean monthly rainfall - Pamplemousses	6-8
Table 13: Risk Assessment Matrix.....	7-1
Table 14: Summary of predicted impacts without mitigation measures.....	7-2
Table 15: Summary of Residual Impacts with Mitigation Measures	7-11

LIST OF FIGURES

Figure 1: Design Concept	4-1
Figure 2: Master Site Plan	4-3
Figure 3: Entrance to the Resort	5-1
Figure 4: Internal Road Reticulation	5-2
Figure 5: Pre-Development Drainage Catchments.....	5-2
Figure 6: Location Plan	6-1
Figure 7: Geological Map - Land Resource and Suitability Map.....	6-3
Figure 8: Topographic Map.....	6-3
Figure 9: Wetlands in the Vicinity of Site	6-5
Figure 10: Wind Rose For Mauritius	6-7
Figure 11: Wetlands and 30m Buffer Zone.....	7-5
Figure 12: Wetland Buffer Zone as Green Area	7-5
Figure 13: STP offset from boundaries and wetland buffer	7-8