

## **TABLE OF CONTENTS**

<b>1</b>	<b>INTRODUCTION .....</b>	<b>1-1</b>
1.1	Project Background.....	1-1
1.2	Designated Projects under EIAO.....	1-1
1.3	Purpose of the EIA Study .....	1-1
1.4	Objectives of this EIA Study .....	1-2
1.5	Structure of the EIA Report.....	1-2
<b>2</b>	<b>PROJECT DESCRIPTION .....</b>	<b>2-1</b>
2.1	Introduction .....	2-1
2.2	Purposes, Objectives and Environmental Benefits of the Project .....	2-1
2.3	The Need of the Project.....	2-1
2.4	Site Location, History and Scope of the Project .....	2-3
2.5	Consideration of Alternative Design and Layout .....	2-8
2.6	Consideration of Alternative Designs to Minimize Emergency Discharges.....	2-11
2.7	Sustainability Consideration .....	2-13
2.8	Consideration of Alternative Construction Methods and Sequences of Works.....	2-13
2.9	Construction Programme.....	2-18
2.10	Concurrent Projects .....	2-18
2.11	Public Consultation .....	2-18
<b>3</b>	<b>AIR QUALITY IMPACT .....</b>	<b>3-1</b>
3.1	Introduction .....	3-1
3.2	Environmental Legislation, Standards and Criteria .....	3-1
3.3	Description of Environment.....	3-3
3.4	Identification of Air Sensitive Receivers .....	3-4
3.5	Identification of Environmental Impacts.....	3-8
3.6	Assessment Methodology.....	3-12
3.7	Prediction and Evaluation of Environmental Impacts .....	3-21
3.8	Mitigation of Adverse Environmental Impacts .....	3-26
3.9	Evaluation of Residual Impacts .....	3-28
3.10	Environmental Monitoring and Audit Requirements .....	3-29
3.11	Conclusion .....	3-29
<b>4</b>	<b>NOISE IMPACT .....</b>	<b>4-1</b>
4.1	Introduction .....	4-1
4.2	Environmental Legislation, Standards and Criteria .....	4-1
4.3	Description of Environment.....	4-3
4.4	Noise Sensitive Receivers .....	4-3
4.5	Identification and Evaluation of Environmental Impacts .....	4-3
4.6	Evaluation of Residual Impacts .....	4-4
4.7	Environmental Monitoring and Audit.....	4-4
4.8	Conclusion .....	4-4
<b>5</b>	<b>WATER QUALITY IMPACT .....</b>	<b>5-1</b>
5.1	Introduction .....	5-1
5.2	Environmental Legislation, Standards and Criteria .....	5-1
5.3	Description of Environment.....	5-10
5.4	Identification of Water Sensitive Receivers .....	5-18
5.5	Assessment Methodology.....	5-19
5.6	Prediction and Evaluation of Environmental Impacts .....	5-27
5.7	Mitigation of Adverse Environmental Impacts .....	5-46
5.8	Evaluation of Residual Impacts .....	5-52
5.9	Cumulative Impacts .....	5-52
5.10	Environmental Monitoring and Audit.....	5-52
5.11	Conclusion .....	5-53
<b>6</b>	<b>WASTE MANAGEMENT IMPLICATION .....</b>	<b>6-1</b>
6.1	Introduction .....	6-1
6.2	Environmental Legislation, Standards and Criteria .....	6-1

6.3	Description of the Environment.....	6-3
6.4	Assessment Methodology.....	6-3
6.5	Identification and Evaluation of Wastes Implications.....	6-4
6.6	Mitigation of Adverse Environmental Impacts .....	6-8
6.7	Evaluation of Residual Impacts .....	6-15
6.8	Environmental Monitoring and Audit Requirements .....	6-15
6.9	Conclusion .....	6-15
<b>7</b>	<b>LAND CONTAMINATION .....</b>	<b>7-1</b>
7.1	Introduction .....	7-1
7.2	Environmental Legislation, Standards and Criteria .....	7-1
7.3	Assessment Methodology.....	7-1
7.4	Description of the Environment.....	7-2
7.5	Identification of Potential Land Contamination Concern.....	7-3
7.6	Site Investigation Plan .....	7-8
7.7	Prediction and Evaluation of Environmental Impacts .....	7-13
7.8	Mitigation of Adverse Environmental Impacts .....	7-13
7.9	Evaluation of Residual Impacts .....	7-14
7.10	Environmental Monitoring and Audit Requirements .....	7-14
7.11	Conclusion .....	7-15
<b>8</b>	<b>ECOLOGICAL IMPACT (TERRESTRIAL AND AQUATIC).....</b>	<b>8-1</b>
8.1	Introduction .....	8-1
8.2	Environmental Legislation, Standards and Guidelines .....	8-1
8.3	Assessment Methodology.....	8-3
8.4	Baseline Conditions .....	8-6
8.5	Survey Findings .....	8-13
8.6	Ecological Value .....	8-23
8.7	Identification of Potential Impacts and Evaluation .....	8-32
8.8	Prediction and Evaluation of Environmental Impacts .....	8-37
8.9	Mitigation of Adverse Environmental Impacts .....	8-45
8.10	Evaluation of Residual Ecological Impacts.....	8-47
8.11	Environmental Monitoring and Audit.....	8-47
8.12	Conclusion .....	8-47
8.13	Reference .....	8-48
<b>9</b>	<b>LANDSCAPE AND VISUAL .....</b>	<b>9-1</b>
9.1	Introduction .....	9-1
9.2	Environmental Legislation, Standards and Guidelines .....	9-1
9.3	Assessment Methodology.....	9-1
9.4	Review of Planning and Development Control Framework.....	9-4
9.5	Baseline Findings.....	9-5
9.6	Preliminary Landscape and Visual Impact Assessment.....	9-14
9.7	Landscape and Visual Mitigation Measures .....	9-21
9.8	Preliminary Evaluation of Residual Impacts .....	9-24
9.9	Cumulative Impacts .....	9-29
9.10	Conclusion .....	9-29
<b>10</b>	<b>HAZARD TO LIFE ASSESSMENT.....</b>	<b>10-1</b>
10.1	Introduction .....	10-1
10.2	Environmental Legislation, Standards and Criteria .....	10-1
10.3	Study Objectives and Methodology .....	10-2
10.4	Description of Surroundings .....	10-4
10.5	Hazard Identification .....	10-8
10.6	Frequency Analysis.....	10-13
10.7	Consequence and Impact Analysis .....	10-19
10.8	Risk Evaluation .....	10-21
10.9	Recommendations.....	10-24
10.10	Environmental Monitoring and Audit Requirement .....	10-25
10.11	Conclusion .....	10-25
10.12	Reference .....	10-25

<b>11</b>	<b>ENVIRONMENTAL MONITORING &amp; AUDIT REQUIREMENTS</b>	<b>11-1</b>
11.1	Introduction	11-1
11.2	Air Quality Impact	11-1
11.3	Noise Impact	11-1
11.4	Water Quality Impact	11-1
11.5	Waste Management Implication	11-2
11.6	Land Contamination	11-2
11.7	Ecological Impact (Terrestrial and Aquatic)	11-2
11.8	Landscape and Visual Impact	11-3
11.9	Hazard to Life	11-3
<b>12</b>	<b>IMPLEMENTATION SCHEDULE OF RECOMMENDED MITIGATION MEASURES</b>	<b>12-1</b>
12.1	Implementation Schedule of Recommended Mitigation Measures	12-1
<b>13</b>	<b>CONCLUSIONS</b>	<b>13-1</b>
13.1	Introduction	13-1
13.2	Summary of Key Environmental Outcomes	13-1
13.3	Overall Conclusion	13-6