

Appendix 15.1

Key Assessment Assumptions and Limitation of Assessment Methodologies

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Assessment Methodologies	Assessment Assumptions	Limitations of Assessment Methodologies / Assumptions	Prior Agreements with EPD		Proposed Alternative Assessment Tools/ Assumptions (if applicable)
			EIA Study Brief Clause Reference	Relevant Document	
Air Quality Impact					
Construction Phase					
The air quality impact assessment for the Project follows Annex 4 and Annex 12 of the EIAO-TM. Dust emission will be the major air quality impact. As the construction works will be carried out by sections, and are localized within limited works areas, air quality from the Project is anticipated to be insignificant. Qualitative assessment was carried out.	The construction activities and construction programme of the Project are based on the Project design provided by the Engineer.	The construction programme is tentative and subject to contractors' actual operation.	Section 3.4.4 and Appendix B	-	-
Noise Impact					
Construction Phase					
The airborne noise impact assessment for the Project follows Annex 5 and Annex 13 of the EIAO-TM. Quantitative assessment was carried out to demonstrate no adverse construction noise impact by committing to adopt appropriate noise mitigation measures during construction phase.	The construction activities, construction programme and plant inventory of the Project are based on the Project design provided by the Engineer. It is assumed that all PME items required for a particular construction activity will be located at the notional source position of the workfronts. The assessment was based on the cumulative SWL of PME likely to be used in each work areas, taking into account the construction period in the vicinity of the receiver location. To predict the construction noise impacts, PME were divided into groups required for individual construction activity. The objective is to identify the worst case scenario representing those items of PME that will be in use concurrently at any given time. The SPL of individual construction activity was calculated, depending on the	The construction programme is tentative and subject to contractors' actual operation. The prediction of construction noise impacts is based on GW-TM. The SWL of PME was based on GW-TM and QPME system. The actual situation may be better than that of the prediction. In carrying out the assessment, worst case assumptions have been assumed in order to provide conservative noise impact assessments such as locating all the PME at the notional source position.	Sections 3.4.5 and Appendix C	-	-

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	<p>number of PME and distance from receivers. The noise levels at NSRs were then predicted by the sum of SWLs of all concurrent construction activities with their respective distance correction.</p> <p>A positive 3dB(A) façade correction was added to the predicted noise levels in order to account for the façade effect at each receiver.</p> <p>On-time percentages of utilization rates for PME and the plant inventory were reasonably assumed by Engineer.</p>				
The groundborne construction noise impact assessment for the Project follows Annex 5 and Annex 13 of the EIAO-TM and IND-TM under NCO.	The closest existing representative NSRs at Ngau Tam Village are located at more than 300m away from the modification works of Chamber G. Given the large separation distance and geographical separation by natural terrain, adverse groundborne construction noise impacts from the modification of Chamber G are not anticipated.	-	Sections 3.4.5 and Appendix C		-
Operational Phase					
The fixed noise source impact assessment for the Project follows Annex 5 and Annex 13 of the EIAO-TM and IND-TM under NCO.	As there are no planned fixed noise sources for the modification of Chamber G and the fresh water trunk mains, no representative NSRs would be affected by the fixed noise source.	-	Sections 3.4.5 and Appendix C	-	-

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Water Quality Impact					
Construction Phase					
<p>Assessment of water quality impact in construction phase refers to the methodology in Annex 6 and Annex 14 of the EIAO-TM.</p> <p>The water quality impact during the construction phase were identified. Mitigation measures are recommended for the identified source of water pollution to minimise the potential water quality impacts.</p>	<p>The types of water pollution to be generated from the Project are based on the latest construction methodology, with references made to projects of a similar nature.</p>	-	Section 3.4.6 and Appendix D	-	-
Operational Phase					
<p>Assessment of water quality impact in operational phase refers the methodology in Annex 6 and Annex 14 of the EIAO-TM.</p> <p>No adverse water quality impact during the operational phase were identified.</p>	<p>Assumptions made in the assessment are based on the latest design.</p>	-	Section 3.4.6 and Appendix D	-	-
Waste Management Implication					
<p>The assessment of waste management implications from handling, storage, collection, transportation and disposal of solid waste materials generated by the Project follows:</p> <ul style="list-style-type: none"> EIAO-TM Annex 7 and Annex 15; WDO (Cap 354) and subsidiary regulations; Waste Disposal (Chemical Waste) (General) Regulation 	<p>Waste generated in the construction phase are determined based on the latest construction methodology.</p> <p>Waste generated in the operational phase is determined based on operation parameters and land use of the Project.</p>	-	Section 3.4.7 and Appendix E	-	-

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<p>(Cap. 354C);</p> <ul style="list-style-type: none"> Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N). Land (Miscellaneous Provisions) Ordinance (Cap. 28); and Public Health and Municipal Services Ordinance (Cap. 132) – Public Cleansing and Prevention of Nuisances Regulation. <p>Potential waste management implications from the generation of waste during the construction and operational phase have been evaluated. Measures and recommendations have been made for implementation by the Contractor during the construction period to minimize waste generation and off-site disposal.</p>					
Land Contamination Impact					
<p>The land contamination assessment for the Project follows</p> <ul style="list-style-type: none"> EIAO-TM Annex 19, Guidelines for Assessment of Impact On Sites of Cultural Heritage and Other Impacts (Section 3 : Potential Contaminated Land Issues), EPD, 2023; Guidance Manual for Use of Risk- 	<p>Assumptions made in the assessment are based on latest boundary of the Project and the works of the Project, as well as current and historical land uses.</p>	-	Section 3.4.8 and Appendix F	-	-

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<p>Based Remediation Goals (RBRGs) for Contaminated Land Management, EPD, Revised in April 2023;</p> <ul style="list-style-type: none"> Guidance Notes for Contaminated Land Assessment and Remediation, EPD, Revised in April 2023; Practice Guide for Investigation and Remediation of Contaminated Land, EPD, Revised in April 2023 					
Ecological Impact					
The ecological impact assessment follows Annex 8 and Annex 16 of the EIAO-TM.	Assumptions made in the assessment are based on the latest Project design.	Ecological baseline is established based on literature review as well as habitat, flora and fauna surveys. Surveys were taken in representative locations and transect routes inside and in the vicinity of the Project as well as the assessment area. Baseline descriptions are considered sufficiently representative to allow subsequent assessments to be made.	Section 3.4.9 and Appendix G	Ecological survey proposal	-
Fisheries Impact					
The fisheries impact assessment follows Annex 9 and Annex 17 of the TM-EIAO.	Assumptions made in the assessment are based on the latest layout.	Fisheries baseline is established based on literature review. Baseline descriptions are considered sufficiently representative to allow subsequent assessments to be made.	Section 3.4.10 and Appendix H		-
Landscape and Visual Impact					
The landscape and visual impact assessment follows Annexes 10 and 18 of the EIAO-TM and the EIAO Guidance Note No.8/2010.	Assessment assumptions are listed in the methodology stated in Section 10 Landscape and Visual Impact Assessment of this EIA report.	Assessment of landscape and visual baseline is based on literature review, government survey maps and aerial photographs and site visits. There is limitation on review of the baseline	Section 3.4.11 and Appendix I		-

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	Selected viewpoints for the preparation of photomontages to demonstrate the landscape and visual changes as a result of the Project are located at public accessible area and agreed with EPD and PlanD Urban Design and Landscape Unit.	<p>conditions in private properties and inaccessible areas.</p> <p>Photographic record of LRs, LCAs and VSRs are taken at the accessible location to the nearest and representative of the above.</p> <p>A broad brush tree survey is undertaken for this EIA according to the Study Brief. It is sufficiently representing the potential tree impact as a result of the Project and impact on landscape resources. Detailed tree preservation and removal application is required for government approval.</p> <p>Assessment on VSRs of planned development and potential cumulative impact with concurrent project is based on information available through public channels. Impact significance will change following the development of these planned or on-going projects.</p>			
Cultural Heritage Impact					
The cultural heritage impact assessment follows Annex 10 and Annex 19 of the EIAO-TM.	Assumptions made in the assessment are based on the latest Project design.	-	Section 3.4.12 and Appendix J	-	-

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Hazard to Life					
The hazard to life assessment follows Section 3.4.13 in the EIA Study Brief.	Assumptions made in the assessment are based on the latest Project design and information from WSD.		Section 3.4.13 and Appendix K		