

***Appendix 11.2 –  
Key Assessment Assumptions,  
Limitations of Assessment Methodologies  
and Prior Agreements with the Director***

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Assessment Methodology	Key Assessment Assumptions	Limitations of Assessment Methodologies / Assumptions	Prior Agreements with EPD / Other Authorities	
			EIA Study Brief (ESB-316/2019) Clause Reference	Relevant Documentation
<b>Air Quality Impact</b>				
<b>Construction Phase</b>				
<p>The air quality impact assessment follows: Annexes 4 and 12 of the EIAO-TM and requirement from the EIA Study Brief (ESB-316/2019).</p> <p>Qualitative assessment was carried out for air quality impact during construction phase.</p>	<ul style="list-style-type: none"> <li>The construction works would be of small-scale and confined within small work area, and that construction activities will not take place at the entire construction work site at the same time, but to be undertaken at multiple work fronts at different construction periods. The construction activities at different work fronts would not take place concurrently.</li> <li>Two dump trucks per day would be limited for loading and unloading.</li> </ul>	N/A	N/A	N/A
<b>Operational Phase</b>				
<p>The air quality impact assessment follows: Annexes 4 and 12 of the EIAO-TM and requirement from the EIA Study Brief (ESB-316/2019).</p> <p>Quantitative assessment was carried out by applying EMFAC-HK, AERMOD and CALINE4 model.</p>	<p><u>Emission from Open Road Traffic</u></p> <ul style="list-style-type: none"> <li>Traffic flow and vehicle compositions reported in the Traffic Impact Assessment was adopted</li> <li>Vehicular emissions from open road was based on modeling results of EMFAC-HK v4.2 and the air quality impact was predicted using CALINE4 model.</li> </ul> <p><u>Emission from Portals, Underpass Top Openings, Ventilation Building and Ventilation Exhausts</u></p> <ul style="list-style-type: none"> <li>Calculations of emissions were referenced to the supporting documents for the approved</li> </ul>	<ul style="list-style-type: none"> <li>Adopted background concentration at year 2020 may overestimate air quality in the commencing year, 2025.</li> </ul>	N/A	N/A

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	<p>VEP (EP-453/2013/B) of West Kowloon Cultural District EIA.</p> <ul style="list-style-type: none"> <li>3 Scenarios with different portions of emissions from the portals and the ventilation building were considered. The highest predicted concentration at each representative ASR among the three emission scenarios was selected as a conservative approach.</li> </ul> <p><u>Emission from Bus, Minibus and Coach Terminuses</u></p> <ul style="list-style-type: none"> <li>Start and Idling emissions were calculated and modelled with reference to Calculation of Start Emissions in Air Quality Impact Assessment published by EPD and Road Tunnels: Vehicle Emissions and Air Demand for Ventilation published by World Road Association.</li> </ul> <p><u>Marine Emissions</u></p> <ul style="list-style-type: none"> <li>Marine traffic data was reviewed based on desktop survey and site observation.</li> <li>Marine emission was estimated with reference to the Study on Marine Vessels Emission Inventory (MVEIS) by HKUST and Current Methodologies in Preparing Mobile Source Port-Related Emission Inventories by USEPA.</li> <li>Some assumptions on the exhaust parameters were made based on the approved WKCD EIA Report (AEIAR-178/2013), the approved</li> </ul>			

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	<p>Expansion of Heliport Facilities at Macau Ferry Terminal EIA Report (AEIAR-095/2006), Sludge Treatment Facilities EIA Report (AEIAR-129/2009) and West New Territories (WENT) Landfill Extensions – Feasibility Study EIA Report (AEIAR-147/2009).</p> <p><u>Background Concentration</u></p> <ul style="list-style-type: none"> <li>• PATH background concentration at year 2020 was adopted.</li> <li>• Vehicular and marine emissions were removed from the emission inventory of PATH-2016 model to avoid double counting.</li> </ul>			

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<b>Noise Impact</b>				
<b>Construction Phase</b>				
The noise impact assessment follows: Annexes 5 and 13 of the EIAO-TM and requirement from the EIA Study Brief (ESB-316/2019).	<ul style="list-style-type: none"> <li>The construction noise was predicted based on standard acoustic principles.</li> <li>Sound Power Levels (SWLs) of powered mechanical equipment (PME) were taken from Table 3 of the GW-TM or “Sound power levels of other commonly used PME” (Other PME) published by EPD.</li> </ul>	<ul style="list-style-type: none"> <li>The prediction of construction noise impact was based on the procedures in GW-TM under the NCO. The programme and plant inventory for proposed construction works adopted in the assessment might vary in future.</li> </ul>	Clause 2.2.1 (i), 2.2.1 (iii) and 2.3.1 of Appendix C	Agreement letters on the assessment area, NAPS and construction programme
<b>Operational Phase</b>				
The noise impact assessment follows: Annexes 5 and 13 of the EIAO-TM and requirement from the EIA Study Brief (ESB-316/2019).	<ul style="list-style-type: none"> <li>Road traffic noise was predicted based on the traffic flows, following strictly the procedures stipulated in the “Calculation of Road Traffic Noise (CRTN)” (1988) published by Department of Transport, UK. Road traffic noise was presented in terms of noise levels exceeded for 10% of the one-hour period, having the peak traffic flow (i.e. L10, 1hour, dB(A)). The assessment year of unmitigated scenario was determined on the basis of peak hour traffic flow projected within a period of 15 years following commencement of operation of the Project.</li> </ul>	N/A	Clause 3.2.1 (i), 3.2.1 (iii) and 3.2.2 (i) of Appendix C	Agreement letters on the assessment area, NAPS and road extent

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<b>Water Quality Impact</b>				
<p>The water quality impact assessment follows: Annexes 6 and 14 of the EIAO-TM and requirement from the EIA Study Brief (ESB-316/2019).</p> <p>Qualitative assessment was conducted for the water quality impact during both construction and operation phases. The water pollution to be generated during both construction and operation phases were identified. The amount of water pollution generated during operation phase was quantified. Mitigation measures are recommended for the identified source of water pollution to minimize the potential water quality impacts.</p>	<ul style="list-style-type: none"> <li>The types and quantities of water pollution to be generated from the Project are based on the Project design and / or engineering assessments.</li> </ul>	N/A	Appendix D	N/A
<b>Waste Management Implications</b>				
<p>The waste management implication assessment for the Project follows: Annexes 7 and 15 of the EIAO-TM as well as the requirements given in EIA Study Brief (No. ESB-316/2019).</p>	<ul style="list-style-type: none"> <li>The waste quantities to be generated from the Project were estimated based on engineering assessment.</li> </ul>	N/A	N/A	N/A

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<b>Land Contamination</b>				
<p>The land contamination assessment for the Project follows: Annex 19 of the EIAO-TM, requirements given in EIA Study Brief (No. ESB-316/2019) as well as the following:</p> <ul style="list-style-type: none"> <li>Guidance Note for Contaminated Land Assessment and Remediation (EPD, 2007)</li> <li>Practice Guide for Investigation and Remediation of Contaminated Land (EPD, 2011)</li> <li>Guidance Manual for Use of Risk-based Remediation Goals for Contaminated Land Management (EPD, 2007)</li> </ul>	<ul style="list-style-type: none"> <li>The assessment was undertaken based on historical land use and site inspection.</li> </ul>	N/A	N/A	N/A
<b>Landscape and Visual Impacts</b>				
<p>The Landscape Impact and Visual Impact of the Project follows: Annexes 10 and 18 of the EIAO-TM as well as the requirements given in EIA Study Brief (No. ESB-316/2019).</p>	<ul style="list-style-type: none"> <li>Landscape and Visual Impact Assessment was carried out based on the project description provided in Section 2 of the EIA Report</li> </ul>	N/A	N/A	N/A