

## Appendix 13.2 Key Assessment Assumptions and Limitations of Assessment Methodologies

## Air Quality Impact

Assessment Methodology	Key Assessment Assumptions	Limitations of Assessment Methodologies / Assumptions	Prior Agreements with EPD / Other Authorities		Proposed Alternative Assessment Tools / Assumptions (if applicable)
			EIA Study Brief (ESB-307/2018) Clause Reference	Relevant Documentation	
Construction Phase					
The air quality impact assessment for the Project was conducted following Annex 4 and Annex 12 of the EIAO-TM and requirements from the EIA Study Brief (ESB-307/2018). Qualitative assessment was conducted for the air quality impact during the construction phase.	<ul style="list-style-type: none"><li>The construction works of would be of small-scale and confined within small works area. In addition, construction activities will not take place at the entire construction site at the same time, but will be undertaken at different works fronts at different construction periods.</li></ul>	N/A	N/A	N/A	N/A
Operation Phase					
The air quality impact assessment for the Project was conducted following Annex 4 and Annex 12 of the EIAO-TM and requirements from the EIA Study Brief (ESB-307/2018). Qualitative assessment was conducted for the air quality impact during the construction phase.	<ul style="list-style-type: none"><li>Screened debris/materials will be removed on demand basis to maintain the function of the pumping station as well as to preclude any potential odour impact during operation.</li><li>Small-scale maintenance requiring only light mechanical equipment and hand-held equipment.</li></ul>	N/A	N/A	N/A	N/A

## Noise Impact

Assessment Methodology	Key Assessment Assumptions	Limitations of Assessment Methodologies / Assumptions	Prior Agreements with EPD / Other Authorities		Proposed Alternative Assessment Tools / Assumptions (if applicable)
			EIA Study Brief (ESB-307/2018) Clause Reference	Relevant Documentation	
Construction Phase					
The noise impact assessment for the Project was conducted following Annex 5 and Annex 13 of the EIAO-TM, the requirement in the EIA Study Brief (ESB-307/2018) and Technical Memorandum on Noise from Construction Works other than Percussive Piling (GW-TM) under the Noise Control Ordinance. Quantitative assessment was conducted to predict the construction noise impact	<ul style="list-style-type: none"><li>Construction noise impact was predicted based on standard acoustic principles. Sound Power Levels (SWLs) of powered mechanical equipment (PME) were taken from Table 3 of the GW-TM, EPD’s <i>Sound power levels of other commonly used PME</i>, Quality Powered Mechanical Equipment (QPME) available at EPD’s website, and other similar studies or from measurements taken at other sites in Hong Kong.</li><li>PME were assumed to be located at the notional source of the works sites.</li><li>Noise reduction by noise insulating sheet is assumed to be 10dB(A).</li><li>Noise reduction by movable noise barriers are assumed to be 5dB(A) for movable PME and 10dB(A) for static PME.</li><li>No two works area with less than 300m separation distance.</li></ul>	The construction programme and plant inventory were indicative and subject to contractors’ actual operation.	N/A	N/A	N/A
Operation Phase					
The noise impact assessment for the Project was conducted following Annex 5 and Annex 13 of the EIAO-TM, the requirement in the EIA Study Brief (ESB-307/2018) and	<ul style="list-style-type: none"><li>Fixed noise impact was predicted based on standard acoustic principles.</li><li>The inventory of the noise sources and its SWLs for the planned pumping stations and E&amp;M control building</li></ul>	Location of planned fixed noise sources and their associated maximum SWLs may be varied in the detailed	N/A	N/A	N/A

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			EIA Study Brief (ESB-307/2018) Clause Reference	Relevant Documentation	
Technical Memorandum for the Assessment of Noise from Places other than Domestic Premises, Public Places or Construction Sites (IND-TM). Quantitative assessment was conducted to predict the fixed noise impacts during the operation phase.	<p>were referenced from approved Project Profile / EIAs and confirmed with the Project Engineer.</p> <ul style="list-style-type: none"> <li>• Prevailing background noise surveys were conducted to determine the standards for evaluating fixed noise impact.</li> <li>• Worst operation mode confirmed by project proponent and Project Engineer was assessed to represent the maximum noise emission.</li> </ul>	design stage.			

**Water Quality Impact**

Assessment Methodology	Key Assessment Assumptions	Limitations of Assessment Methodologies / Assumptions	Prior Agreements with EPD / Other Authorities		Proposed Alternative Assessment Tools / Assumptions (if applicable)
			EIA Study Brief (ESB-307/2018) Clause Reference	Relevant Documentation	
Construction Phase					
The water quality impact assessment for the Project was conducted following Annex 6 and Annex 14 of the EIAO-TM and the requirement in the EIA Study Brief (ESB-307/2018).  Qualitative assessment was conducted for the water quality impact during the construction phase.	The construction method of the Project is based on the engineering assessment and proposed Project design.	N/A	N/A	N/A	N/A
Operation Phase					
The water quality impact assessment for the Project was conducted following Annex 6 and Annex 14 of the EIAO-TM and the requirement in the EIA Study Brief (ESB-307/2018).  Qualitative assessment was conducted for the water quality impact during the operation phase.	The proposed barrage and drainage works were based on the engineering assessment and proposed Project design.	N/A	N/A	N/A	N/A

## Waste Management and Land Contamination

Assessment Methodology	Key Assessment Assumptions	Limitations of Assessment Methodologies / Assumptions	Prior Agreements with EPD / Other Authorities		Proposed Alternative Assessment Tools / Assumptions (if applicable)
			EIA Study Brief (ESB-307/2018) Clause Reference	Relevant Documentation	
Construction Phase					
<p>The waste management implication assessment for the Project was conducted following Annexes 7 and 15 of the EIAO-TM and the requirements in the EIA Study Brief (ESB-307/2018).</p> <p>The land contamination assessment for the Project was conducted following Annexes 19 of the EIAO-TM and the requirements in the EIA Study Brief (ESB-307/2018).</p>	<p>Waste quantities to be generated from the Project were estimated based on the engineering assessment and Project design.</p> <p>The land contamination assessment was undertaken based on historical land use, government records and site reconnaissance at the time of the EIA Study.</p>	N/A	Clause 3.4.9 and Appendix G	Sediment Sampling and Testing Plan	N/A
Operational Phase					
<p>The waste management implication assessment for the Project was conducted following Annexes 7 and 15 of the EIAO-TM and the requirements in the EIA Study Brief (ESB-307/2018).</p>	<p>Waste quantities to be generated from the Project were estimated based on the Project design.</p>	N/A	N/A	N/A	N/A

**Ecological Impact**

Assessment Methodology	Key Assessment Assumptions	Limitations of Assessment Methodologies / Assumptions	Prior Agreements with EPD / Other Authorities		Proposed Alternative Assessment Tools / Assumptions (if applicable)
			EIA Study Brief (ESB-307/2018) Clause Reference	Relevant Documentation	
<p>The ecological impact assessment for the project was conducted following:</p> <ul style="list-style-type: none"> <li>- Annex 8 and 16 of the EIAO-TM for the criteria, general approach and methodology for assessment of ecological impacts;</li> <li>- EIAO Guidance Note No. 6/2010, 7/2010 and 10/2010 for general guidelines and methodology for conducting ecological assessment and ecological baseline survey</li> </ul>	<p>The ecological assessment and evaluation were undertaken based on results of literature review and ecological field surveys.</p>	N/A	Clause 3.4.6 and Appendix D	Methodology Paper for Ecological Survey	N/A

**Fisheries Impact**

Assessment Methodology	Key Assessment Assumptions	Limitations of Assessment Methodologies / Assumptions	Prior Agreements with EPD / Other Authorities		Proposed Alternative Assessment Tools / Assumptions (if applicable)
			EIA Study Brief (ESB-307/2018) Clause Reference	Relevant Documentation	
The fisheries impact assessment for the Project was conducted following Annexes 9 and 17 of the EIAO-TM and the requirements in the EIA Study Brief (ESB-307/2018).	The fisheries impact assessment was undertaken based on results of literature review and field surveys.	N/A	N/A	Methodology Paper for Ecological Survey	N/A

**Cultural Heritage Impact**

Assessment Methodology	Key Assessment Assumptions	Limitations of Assessment Methodologies / Assumptions	Prior Agreements with EPD / Other Authorities		Proposed Alternative Assessment Tools / Assumptions (if applicable)
			EIA Study Brief (ESB-307/2018) Clause Reference	Relevant Documentation	
Construction Phase					
The cultural heritage impact assessment for the Project was conducted following: <ul style="list-style-type: none"><li>A&amp;M Ordinance (Cap. 53);</li><li>Annexes 10 and 19 of the EIAO-TM;</li><li>Guidelines for CHIA; and</li><li>Requirements in the EIA Study Brief (ESB-307/2018).</li></ul>	<ul style="list-style-type: none"><li>No archaeological impact assessment was required in the Study Brief;</li><li>100m study area was adopted for Built Heritage Impact Assessment.</li></ul>	N/A	Clause 3.4.11, Appendix I and I-1	N/A	N/A
Operation Phase					
The cultural heritage impact assessment for the Project was conducted following: <ul style="list-style-type: none"><li>A&amp;M Ordinance (Cap. 53);</li><li>Annexes 10 and 19 of the EIAO-TM;</li><li>Guidelines for CHIA; and</li><li>Requirements in the EIA Study Brief (ESB-307/2018).</li></ul>	<ul style="list-style-type: none"><li>No archaeological impact assessment was required in the Study Brief;</li><li>100m study area was used for Built Heritage Impact Assessment.</li></ul>	N/A	Clause 3.4.11, Appendix I and I-1	N/A	N/A



## Landscape and Visual Impact

Assessment Methodology	Key Assessment Assumptions	Limitations of Assessment Methodologies / Assumptions	Prior Agreements with EPD / Other Authorities		Proposed Alternative Assessment Tools / Assumptions (if applicable)
			EIA Study Brief (ESB-307/2018) Clause Reference	Relevant Documentation	
The landscape and visual impact assessment was prepared in accordance with Annexes 10 and 18 of the TM and EIAO Guidance Note No. 8/2010 on "Preparation of Landscape and Visual Impact Assessment under the Environmental Impact Assessment Ordinance" for evaluating and assessing combined landscape and visual impacts of the Project and associated works.	<p>A key assessment assumption is that the engineering and architectural works for the nullah drainage improvement comprise the source of the landscape and visual impacts and that the proposed nullah landscape enhancement works comprise landscape and visual mitigation measures.</p> <p>Funding, implementation, management and maintenance of the landscape and visual mitigation proposals will be satisfactorily resolved according to the principles in DEVB TC(W) No. 6/2015.</p>	<ul style="list-style-type: none"> <li>Proposed locations of the barrage, pumping stations, E&amp;M control building, their footprints, forms, height and façade design are preliminary at the time of conducting this LVIA, and are subject to change in the detailed design phases of the project.</li> <li>Impact to individual trees as a result of the proposed barrage, pumping stations, E&amp;M control building and channel enhancement works is subject to further review at the detailed design stage of the project in accordance with DEVB TC(W) No. 04/2020 Tree Preservation.</li> <li>Not all sites are accessible to capture baseline photographs</li> </ul>	Section 3.4.10, Appendix H	N/A	N/A

Assessment Methodology	Key Assessment Assumptions	Limitations of Assessment Methodologies / Assumptions	Prior Agreements with EPD / Other Authorities		Proposed Alternative Assessment Tools / Assumptions (if applicable)
			EIA Study Brief (ESB-307/2018) Clause Reference	Relevant Documentation	
		<p>for the visual impact assessment. This is mainly due to access not being granted to private property and higher levels of buildings.</p> <p>Descriptions of views from these locations and predicted impacts have been extrapolated from visits to surrounding areas and topographical data and aided by illustrations.</p> <ul style="list-style-type: none"> <li>The revitalisation works of YLN is subject to further review in detailed design stage.</li> </ul>			