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9 August 2024

By Registered Post & Fax

West Development Office
Civil Engineering and Development Department

**Environmental Impact Assessment (EIA) Ordinance, Cap.499
Application for EIA Study Brief**

**Project Title: Developments at Lau Fau Shan, Tsim Bei Tsui and Pak Nai Areas
(Application No. ESB-368/2024)**

I refer to your above application received on 27 June 2024 for an EIA Study Brief under Section 5(1)(a) of the EIA Ordinance.

In accordance with Section 5(7)(a) of the EIA Ordinance and after public inspection of the project profile, I issue the attached EIA Study Brief (No. ESB-368/2024) for your preparation of an EIA report.

Under Section 15 of the EIA Ordinance, the EIA Study Brief will be placed on the EIA Ordinance Register. It will also be placed on the EIA Ordinance website (<http://www.epd.gov.hk/eia/>).

You may submit an application for approval of the EIA report in accordance with Section 6(2) of the EIA Ordinance after its completion. Upon receipt of your application, this department will decide under Section 6(3) of the EIA Ordinance whether the EIA report meets the requirements of the EIA Study Brief and Technical Memorandum on EIA Process, and accordingly advise you under Section 6(4) of the EIA Ordinance whether a submission to the Advisory Council on the Environment (ACE) or its subcommittee is required. In this connection, you are required to provide a set of soft copy of the Executive Summary of the EIA report to the Secretariat of the EIA Subcommittee of the Council by email at acesecretariat@eeb.gov.hk for selection for submission when you submit the EIA report to this department for approval. Should you have questions on the submission, please contact Executive Officer (Cross-Boundary & International Division) 1 of the Secretariat of the EIA Subcommittee of the ACE at 2594 6324.

If the EIA report is selected by ACE for submission and presentation, you are expected to provide ACE with an account of the environmental issues arising from the project, major conclusions and recommendations of the EIA study. In particular, the main environmental concerns of the general public and interest groups who may be affected by the Project should be identified and addressed in the EIA study. As such, you are strongly advised to engage the public and interest groups during the course of the EIA study. Please find attached a copy of the "*Guidance Note on Advertisement and Public Inspection of Documents*" and "*Modus Operandi of the EIA Subcommittee of the Advisory Council on the Environment*" for your reference.

Please note that if you are aggrieved by any of the content of this EIA Study Brief, you may appeal under Section 17 of the EIA Ordinance within 30 days of receipt of this EIA Study Brief.

Should you have any queries on the above application, please contact my colleague Mr. William LUNG at 2835 1129.

Yours sincerely,



(Ms Clara K.W. U)
Acting Principal Environmental Protection Officer
for Director of Environmental Protection

Encl.

c.c. (w/o encl.)

ACE EIA Subcommittee Secretariat

(Attn. : EO(CBD)1

Fax: 2872 0603)

Environmental Impact Assessment Ordinance (Cap. 499), Section 5 (7)**Environmental Impact Assessment Study Brief No. ESB-368/2024****Project Title: Developments at Lau Fau Shan, Tsim Bei Tsui and Pak Nai Areas
(hereinafter known as the “Project”)****Name of Applicant: Civil Engineering and Development Department
(hereinafter known as the “Applicant”)****1. BACKGROUND**

- 1.1 An application (No. ESB-368/2024) for an Environmental Impact Assessment (EIA) study brief under section 5(1)(a) of the Environmental Impact Assessment Ordinance (EIAO) was submitted by the captioned Applicant on 27 June 2024 with a project profile (No. PP-670/2024) (the Project Profile).
- 1.2 The Applicant is going to conduct a study for the Lau Fau Shan (LFS), Tsim Bei Tsui (TBT) and Pak Nai (PN) Areas will be an extension of the Hung Shui Kiu/Ha Tsuen New Development Area (HSK/HT NDA). The Project comprises the area of LFS and part of the RP development of HSK/HT NDA. The Project with a site area of around 930 ha with a total development area of about 411 ha. The Project would include road network and developments such as public and private residential housing, business and technology parks, eco-tourism uses, retail, dining and entertainment uses, logistics facilities, a data centre, a revamped seafood market, government institutions (e.g. electricity substation, sewage treatment works, sewage pumping stations, etc.), and education institutions. The location of the Project area is shown in the figure attached in the Project Profile which is reproduced in **Appendix A**.
- 1.3 The Project is a designated project (DP) under Item 1 of Schedule 3 of the EIAO, which specifies that an “An urban development project covering an area of more than 50 ha”. The Project also includes individual work items that may fall under Schedule 2 of the EIAO. Based on the information provided in the Project Profile, the proposed infrastructure works identified as potential DPs in Part I, Schedule 2 of the EIAO include the following:-
- (i) Item A.1 – A carriageway for motor vehicles that is an expressway, trunk road, primary distributor road or district distributor road.
 - (ii) Item A.2 – A railway and its associated stations.
 - (iii) Item A.4 – A railway siding, depot, maintenance workshop, marshalling yard or goods yard.
 - (iv) Item A.6 – A transport depot located less than 100 m from the nearest boundary of an existing or planned (a) residential area; (b) place of worship; (c) educational institution; or (d) health care institution.
 - (v) Item A.7 – A road tunnel or railway tunnel more than 800m in length between portals.
 - (vi) Item B.5 – A container backup area, container storage, container handling or container packing area (including a container vehicle parking area) more than 5 ha in size and within 300 m of an existing or planned (a) residential area; (b) place of worship; (c) educational institution; or (d) health care institution.
 - (vii) Item C.2 (1) – Reclamation works (including associated dredging works) that are of more than 1 ha in size, and a boundary of which is (a) less than 500 m from the

nearest boundary of an existing or planned specified area that is wholly or partly situated on or over any foreshore and sea-bed; (b) less than 200 m from the nearest boundary of an existing or planned specified area that is not wholly or partly situated on or over any foreshore and sea-bed; or (c) less than 100 m from the nearest boundary of an existing residential area.

- (viii) Item C.12 (1) – A dredging operation that is (a) with a dredging volume of more than 500 000 m³; (b) less than 500 m from the nearest boundary of an existing or planned specified area that is wholly or partly situated on or over any foreshore and sea-bed; or (c) less than 200 m from the nearest boundary of an existing or planned specified area that is not wholly or partly situated on or over any foreshore and sea-bed.
 - (ix) Item F.1 – Sewage treatment works with an installed capacity of more than 15,000 m³ per day.
 - (x) Item F.2 – Sewage treatment works (a) with an installed capacity of more than 5 000 m³ per day; and (b) a boundary of which is less than 200 m from the nearest boundary of an existing or planned (i) residential area; (ii) place of worship; (iii) educational institution; (iv) health care institution; (v) site of special scientific interest; (vi) site of cultural heritage; (vii) bathing beach; (viii) marine park; (ix) marine reserve; or (x) fish culture zone.
 - (xi) Item F.4 – A facility for generating, from sewage effluent treated by a sewage treatment plant, reclaimed water for use by the general public.
 - (xii) Item H.1 – A 400 kV electricity substation and transmission line.
 - (xiii) Item I.1 – A drainage channel or river training and diversion works (a) with a channel width of more than 100 m; or (b) located less than 300 m from the nearest boundary of an existing or planned (i) site of special scientific interest; (ii) site of cultural heritage; (iii) marine park; (iv) marine reserve; (v) fish culture zone; (vi) wild animal protection area; (vii) coastal protection area; or (viii) conservation area.
 - (xiv) Item N.3 – A wholesale market for fish or livestock.
 - (xv) Item P.1 – A residential or recreational development, other than New Territories exempted houses, within Deep Bay Buffer Zone 1 or 2.
- 1.4 Pursuant to section 5(7)(a) of the EIAO, the Director of Environmental Protection (the Director) issues this EIA study brief to the Applicant to carry out an EIA study.
- 1.5 The purpose of this EIA study is to provide information on the nature and extent of environmental impacts arising from the construction and operation stages of the Project and associated works that will take place concurrently. This information will contribute to decisions by the Director on:
- (i) the overall acceptability of any adverse environmental consequences that are likely to arise as a result of the Project;
 - (ii) the conditions and requirements for the detailed design, construction and operation of the Project to mitigate against adverse environmental consequences wherever practicable; and
 - (iii) the acceptability of residual impacts after the proposed mitigation measures are implemented.

2. OBJECTIVES OF THE EIA STUDY

2.1 The objectives of the EIA study are as follows:

- (i) to describe the Project and associated works together with the requirements and environmental benefits for carrying out the Project;
- (ii) to identify and describe the elements of the community and environment likely to be affected by the Project and/or likely to cause adverse impacts to the Project, including both the natural and man-made environment and the associated environmental constraints;
- (iii) to identify and quantify emission sources and determine the significance of impacts on sensitive receivers and potential affected uses; and to propose measures to mitigate these impacts;
- (iv) to identify and quantify any potential impacts from point and non-point pollution sources on the identified water systems and sensitive receivers and to propose measures to mitigate these impacts;
- (v) to identify and quantify contaminated land within the Project area, and to propose measures to avoid disposal in the first instance;
- (vi) to identify, evaluate and address any potential ecological impacts arising from the Project and to propose measures to mitigate these impacts;
- (vii) to identify and quantify any potential fisheries impacts and to propose measures to mitigate these impacts;
- (viii) to identify and quantify any potential waste management issues and impacts arising from the construction and operation activities of the Project and to propose measures to mitigate these impacts;
- (ix) to identify any potential landscape and visual impacts and to propose measures to mitigate these impacts;
- (x) to identify any negative impacts on cultural heritage and to propose measures to mitigate these impacts;
- (xi) to identify and quantify any potential hazard to life impacts and to propose measures to mitigate these impacts;
- (xii) to propose the provision of infrastructure or mitigation measures so as to minimise pollution, environmental disturbance and nuisance during construction and operation of the Project;
- (xiii) to investigate the feasibility, practicability, effectiveness and implications of the

proposed mitigation measures;

- (xiv) to identify, predict and evaluate the residual (i.e. after practicable mitigation) environmental impacts and the cumulative effects expected to arise during the construction and operation phases of the Project in relation to the sensitive receivers and potential affected uses;
- (xv) to identify, assess and specify methods, measures and standards, to be included in the detailed design, construction and operation of the Project which are necessary to mitigate these residual environmental impacts and cumulative effects and reduce them to acceptable levels;
- (xvi) to investigate the extent of the secondary environmental impacts that may arise from the proposed mitigation measures and to identify constraints associated with the mitigation measures recommended in the EIA study, as well as the provision of any necessary modification;
- (xvii) to design and specify the environmental monitoring and audit requirements;
- (xviii) to identify any additional studies necessary to implement the mitigation measures of monitoring and proposals recommended in the EIA report; and
- (xix) to identify DP(s) listed under Schedule 2 of the EIAO as part of the Project for assessment under the EIA study.

3. DETAILED REQUIREMENTS OF THE EIA STUDY

3.1 The Purpose

- 3.1.1 The purpose of this EIA study brief is to set out the purposes and objectives of the EIA study, the scope of environmental issues which shall be addressed, the requirements that the EIA study shall need to fulfil, and the necessary procedural and reporting requirements. The Applicant shall demonstrate in the EIA report whether the criteria in the relevant sections of the Technical Memorandum on the Environmental Impact Assessment Process of the Environmental Impact Assessment Ordinance (hereinafter referred to as "the TM"), are fully complied with.

3.2 The Scope

- 3.2.1 The scope of this EIA study shall cover the Project and associated works mentioned in sections 1.2 to 1.3 of this EIA study brief. For the purpose of assessing whether the environmental impacts shall comply with the criteria of the TM, the EIA study shall address the key issues described below, together with any other key issues identified during the course of the EIA study:

- (i) potential air quality impacts on existing air sensitive receivers (ASRs) and planned ASRs during the construction and operation of the Project and associated works. Consideration shall be given to assessing the air quality impact during different phases of the Project on the residents of the Project upon population intake;

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- (ii) potential noise impacts on existing and planned noise sensitive receivers (NSRs) due to the construction and operation of the Project including noise impacts from construction activities, road traffic, fixed noise sources and rail noise. Consideration shall be given to assess the noise impacts during different phases of the Project on the residents of the Project upon population intake;
 - (iii) potential hydrodynamic and water quality impacts on water sensitive receivers (WSRs) and relevant water system(s) in the vicinity due to the construction and operation of the Project;
 - (iv) potential sewerage and sewage treatment implications to cope with discharges from population and any development from the Project, taking into account the capacity requirements for the existing, committed and planned development in the vicinity of the Project;
 - (v) potential waste management implications arising from the construction and operation of the Project, including handling and disposal of dredged sediments, construction and demolition materials, chemical waste, general refuse, domestic and any other waste generated during the operation of the Project;
 - (vi) potential land contamination associated with the historical land uses which have the potential to cause or have caused land contamination, and relevant mitigation measures;
 - (vii) potential terrestrial and marine ecological impact arising from the construction and operation of the Project on ecological sensitive areas, habitats and species, including but not limited to Mai Po and Inner Deep Bay Ramsar Site, Hong Kong Wetland Park, Pak Nai SSSI, Inner Deep Bay SSSI, TBT Egrettry SSSI, TBT SSSI, Wetland Conservation Area, Wetland Buffer Area, Coastal Protection Area, Conservation Area, Inner Deep Bay and Shenzhen River Catchment Important Bird Area, Tin Shui Wai Nullah, egrettries and ardeid night roost, intertidal mudflats, and mangroves and seagrass beds etc.
 - (viii) potential landscape impact due to the construction and operation of the Project;
 - (ix) potential visual impact due to the operation of the Project;
 - (x) potential hazard to life impact during the construction and operation of the Project;
 - (xi) potential cumulative impacts of the Project and associated infrastructure works, through interaction or in combination with concurrent existing, committed and planned projects in the vicinity of the Project, and that those impacts may have a direct bearing on the environmental acceptability of the Project. The impact of likely concurrent projects, including HSK/HT NDA, Hong Kong-Shenzhen Western Rail Link (Hung Shui Kiu - Qianhai), Coastal Protection Park, Proposed upgrading of Deep Bay Road and Nim Wan Road, etc., shall be taken account of in the assessments; and
 - (xii) identification of individual DPs proposed under the Project that fall under Schedule 2 of the EIAO, in addition to those mentioned in section 1.3 of this EIA study brief to ascertain whether the findings of this EIA study have adequately addressed the environmental impacts of those DPs; and

where necessary to identify the outstanding issues that need to be assessed and addressed in any further detailed EIA studies.

3.3 Description of the Project

3.3.1 Purpose(s) and Objectives of the Project

The Applicant shall provide information on the Project, including the purpose(s), objectives and environmental benefits of the Project, and describe the scenarios with and without the Project.

3.3.2 Details of the Project

The Applicant shall indicate the nature and status of Project decision(s) for which the EIA study is undertaken. The Applicant shall describe the proposed land use, design, scale/size, construction methods, sequence and programme of construction works and other major activities involved in the Project, using diagrams, plans and/or maps as necessary. The estimated duration of the construction phase and operational phase of the Project together with the programme within these phases shall be given. The land to be taken by the Project, construction sites, and any associated access arrangements, auxiliary facilities and landscaping areas shall be shown on a scaled map. The land uses of the Project shall be described and the different land use areas shall be demarcated as appropriate.

3.3.3 Background and History of the Project

The Applicant shall provide information on the background of the Project including the project details included in Deep Bay Link Approved EIA Report (Register No. AEIAR-064/2002), Hang Hau Tsuen Channel at Lau Fau Shan (Register No. AEIAR-134/2009) and Hung Shui Kiu New Development Area Approved EIA Report (Register No. AEIAR-203/2016), site location and site history of the Project, interactions with other projects, and the consideration of different development options, taking into account the principles of avoidance, minimising and control of adverse environmental impacts. The options might include siting, scale/size, layout design, alignment, construction methods and sequence of construction works for the Project. The key reasons for selecting the preferred development option(s) and the part environmental factors played in the selection shall be described. The main environmental impacts of different development options shall be compared with those of the Project and with the likely future environmental conditions in the absence of the Project.

3.4 Technical Requirements

3.4.1 The Applicant shall conduct the EIA study to address the environmental aspects of the activities as described in the scope as set out above. The assessment shall be based on the best and latest information available during the course of the EIA study.

3.4.2 The Applicant shall include in the EIA report details of the construction programme and methodologies. The Applicant shall clearly state in the EIA report the time frame and work programmes of the Project and associated works and other concurrent projects, and assess the cumulative environmental impacts from the Project with interacting projects, including staged implementation of the Project and associated works.

3.4.3 The EIA study shall follow the technical requirements specified below and in the Appendices of this EIA study brief.

3.4.4 Air Quality Impact

3.4.4.1 The Applicant shall follow the criteria and guidelines for evaluating and assessing air

quality impact as stated in section 1 of Annex 4 and Annex 12 of the TM respectively.

- 3.4.4.2 The assessment area for the air quality impact assessment shall be defined by a distance of 500 metres from the boundary of the proposed development and the works of the Project as identified in the EIA study, which shall be extended to include major existing, committed and planned air pollutant emission sources identified to have a bearing on the environmental acceptability of the Project. The assessment shall include the existing, committed and planned air sensitive receivers within the assessment area as well as any proposed air sensitive receivers within the proposed development as identified in the EIA and areas where the air quality may be potentially affected by the Project. The assessment shall be based on the best available information at the time of the assessment. The assessment shall also take into account the impacts of emission sources from nearby concurrent projects, if any.
- 3.4.4.3 The assessment of the air quality impact arising from the construction and operation of the Project shall follow the detailed technical requirements given in **Appendix B** of this EIA study brief.

3.4.5 Noise Impact

- 3.4.5.1 The Applicant shall follow the criteria and guidelines for evaluating and assessing noise impact as stated in Annexes 5 and 13 of the TM respectively.
- 3.4.5.2 The assessment area for the noise impact assessment shall be defined by a distance of 300 metres from the boundary of the proposed development and works of the Project as identified in the EIA. The assessment area shall be extended to include NSRs at distances over 300 metres from the boundary of the proposed development and works of the Project, which may be affected by the construction and operation of the Project and have a bearing on the environmental acceptability of the Project. The assessment shall cover the potential noise impacts due to the construction and operation of the Project, including construction noise, road traffic noise, fixed noise sources, rail noise and helicopter noise impacts on the existing, committed and planned NSRs reflected on the relevant Outline Zoning Plans, Development Permission Area Plans, Outline Development Plans, Layout Plans and other relevant published land use plans, including plans and drawings published by the Lands Department and any land use and development applications approved by the Town Planning Board, in the vicinity of the Project as well as any proposed NSRs within the proposed development of the Project as identified in the EIA.
- 3.4.5.3 The noise impact assessment for the construction and operation stages of the Project shall follow the detailed technical requirements given in **Appendix C** of this EIA study brief.

3.4.6 Water Quality Impact

- 3.4.6.1 The Applicant shall follow the criteria and guidelines for evaluating and assessing water pollution as stated in Annexes 6 and 14 of the TM respectively.
- 3.4.6.2 The assessment area for the water quality impact assessment shall include areas within 500 metres from the boundary of the proposed development and works of the Project as identified in the EIA; and shall also cover the Deep Bay Water Control Zone and other affected Water Control Zone(s) as designated under the Water Pollution Control Ordinance (Cap. 358) and the water sensitive receivers (WSRs) in the vicinity of the Project. The assessment area shall be extended to include other areas such as stream courses, existing and new drainage systems and other water system(s) in the vicinity, if they are found also being affected by the Project during the course of the EIA study and have a bearing on the environmental acceptability of the Project.
- 3.4.6.3 The water quality impact assessment for the construction and operation of the Project

shall follow the detailed technical requirements given in **Appendix D** of this EIA study brief.

3.4.7 Waste Management Implications

3.4.7.1 The Applicant shall follow the criteria and guidelines for evaluating and assessing waste management implications as stated in Annexes 7 and 15 of the TM respectively.

3.4.7.2 The assessment of the waste management implications arising from the construction and operation of the Project shall follow the detailed technical requirements given in **Appendix E** of this EIA study brief.

3.4.8 Land Contamination

3.4.8.1 The Applicant shall follow the guidelines for evaluating and assessing potential land contamination issues as stated in sections 3.1 and 3.2 of Annex 19 of the TM.

3.4.8.2 The assessment of the potential land contamination issues shall follow the detailed technical requirements given in **Appendix F** of this EIA study brief.

3.4.9 Sewerage and Sewage Treatment Implications

3.4.9.1 The Applicant shall evaluate and assess the impacts on the downstream public sewerage, sewage treatment and disposal facilities. The assessment of the sewerage and sewage treatment implications for the Project shall follow the detailed technical requirements given in **Appendix G** of this EIA study brief.

3.4.10 Ecological Impact (Terrestrial and Marine)

3.4.10.1 The Applicant shall follow the criteria and guidelines for evaluating and assessing ecological impact as stated in Annexes 8 and 16 of the TM respectively.

3.4.10.2 The assessment area for the purpose of the terrestrial and marine ecological impact assessment shall include areas within 500 metres distance from the boundary of the proposed development and works of the Project as identified in the EIA, and any other areas likely to be impacted by the Project.

3.4.10.3 The Project shall avoid and/or minimise impacts on recognized sites of conservation importance and other ecological sensitive areas within the 500 metres from the boundary of the Project and associated works as well as any other areas likely to be impacted by the Project. In particular, the ecological surveys (including the survey locations and methodologies) at the Project area shall be carefully planned, and carried out so as to avoid potential impacts on any species of conservation importance.

3.4.10.4 The ecological impact assessment for the construction and operation of the Project shall follow the detailed technical requirements given in **Appendix H** of this EIA study brief.

3.4.11 Fisheries Impact

3.4.11.1 The Applicant shall follow the criteria and guidelines for evaluating and assessing fisheries impacts as stated in Annexes 9 and 17 of the TM respectively.

3.4.11.2 The assessment area for fisheries impact assessment shall include areas within 500 metres distance from the boundary of the proposed development and works of the Project as identified in the EIA. This assessment area shall be extended to include other areas with potential fisheries impacts found during the course of the EIA study and have a bearing on the environmental acceptability of the Project. Special attention should be given to potential loss or disturbance of fish pond culture resources and activities as well as any watercourses which serve as water sources for fish pond areas.

3.4.11.3 The fisheries impact assessment for construction and operation of the Project shall follow the detailed technical requirements given in **Appendix I** of this EIA study brief.

3.4.12 Landscape and Visual Impact

3.4.12.1 The Applicant shall follow the criteria and guidelines for evaluating and assessing landscape and visual impact as stated in Section 1 of Annex 10 and Annex 18 of the TM respectively, and the latest version of the EIAO Guidance Note “Preparation of Landscape and Visual Impact Assessment under the EIAO” published on the website of the Environmental Protection Department, unless otherwise agreed by the Director.

3.4.12.2 The assessment area for the landscape impact assessment shall include areas within 100 metres from the site boundary of the Project and the works of the Project as identified in the EIA, while the assessment area for the visual impact assessment shall be defined by the visual envelope of the Project. The extent of the defined visual envelope shall be shown on a plan and documented in the EIA report.

3.4.12.3 The landscape impact assessment for the construction and operation stages of the Project and the visual impact assessment for the operation stage of the Project shall follow the detailed technical requirements given in **Appendix J** of this EIA study brief.

3.4.13 Impact of Cultural Heritage

3.4.13.1 The Applicant shall follow the criteria and guidelines for evaluating and assessing the cultural heritage impacts as stated in Section 2 of Annex 10 and Section 2 of Annex 19 of the TM respectively.

3.4.13.2 The assessment area for the cultural heritage impact assessment (CHIA) shall be defined by a distance of 300 metres from the boundary of the proposed development and works of the Project as identified in the EIA. The CHIA shall cover items on:

- (a) List of Declared Monuments and Proposed Monuments;
- (b) List of Graded Historic Buildings;
- (c) List of New Items for Grading Assessment;
- (d) List of Sites of Archaeological Interest in Hong Kong; and
- (e) List of Government Historic Sites Identified by Antiquities and Monuments Office

as published in the website of Antiquities and Monuments Office (AMO) (www.amo.gov.hk) and are within the assessment area for the CHIA. The CHIA shall also include an Archaeological Impact Assessment (AIA) and a Marine Archaeological Investigation (MAI) covering the area(s) which may be affected by the works associated with the Project.

3.4.13.3 The CHIA for the construction and operation of the Project shall follow the detailed technical requirements given in **Appendix K** of this EIA study brief.

3.4.14 Hazard To Life

3.4.14.1 If the Project involves hazardous facilities, the Applicant shall follow the criteria for evaluating hazard to life as stated in Section 2 of Annex 4 of the TM.

3.4.13.2 The hazard to life assessment for construction and operation of the Project shall follow the detailed technical requirements given in **Appendix L** of this EIA study brief.

3.5 Environmental Monitoring and Audit (EM&A) Requirements

3.5.1 The Applicant shall identify and justify in the EIA study whether there is any need for EM&A activities during the construction and operation phases of the Project and, if

affirmative, to define the scope of the EM&A requirements for the Project in the EIA study.

3.5.2 Subject to the confirmation of the EIA study findings, the Applicant shall comply with the requirements as stipulated in Annex 21 of the TM.

3.5.3 The Applicant shall prepare a project implementation schedule (in the form of a checklist as shown in **Appendix M**) containing the EIA study recommendations and mitigation measures with reference to the implementation programme.

3.6 Presentation of Summary Information

3.6.1 Summary of Environmental Outcomes

The EIA report shall contain a summary of key environmental outcomes arising from the EIA study, including estimated population protected from various environmental impacts, environmentally sensitive areas protected, environmentally friendly options considered and incorporated in the preferred option, environmental designs recommended, key environmental problems avoided, compensation areas included and the environmental benefits of environmental protection measures recommended.

3.6.2 Summary of Environmental Impacts

To facilitate effective retrieval of pertinent key information, the EIA report shall contain a summary table of environmental impacts showing the assessment points, results of impact predictions, relevant standards or criteria, extents of exceedances predicted, impact avoidance measures considered, mitigation measures proposed and residual impacts (after mitigation). This summary shall cover each individual impact and shall also form an essential part of the executive summary of the EIA report.

3.6.3 Documentation of Key Assessment Assumptions, Limitation of Assessment Methodologies and related Prior Agreement(s) with the Director

The EIA report shall contain a summary including the assessment methodologies and key assessment assumptions adopted in the EIA study, the limitations of these assessment(s) methodologies/assumptions, if any, plus relevant prior agreement(s) with the Director or other Authorities on individual environmental media assessment components. The proposed use of any alternative assessment tool(s) or assumption(s) have to be justified by the Applicant, with supporting documents based on cogent, scientific and objectively derived reason(s) before seeking the Director's agreement. The supporting documents shall be provided in the EIA report.

3.6.4 Summary of Alternative Mitigation Measures

The EIA report shall contain a summary of alternative mitigation measures considered during the course of EIA study, such as alignment, design, location, scale, extent, land use and layout options as well as construction methods, disposal/treatment methods and sequences of works for the Project, with a view to avoiding, minimizing and mitigating adverse environmental impacts. A comparison of the environmental benefits and dis-benefits of applying different mitigation options shall be made. This summary shall cover the key impacts and shall also form an essential part of the executive summary of the EIA report.

3.6.5 Documentation of Public Concerns

The EIA report shall contain a summary of the main concerns of the general public, special interest groups and the relevant statutory or advisory bodies received and identified by the Applicant during the course of the EIA study, and describe how the relevant concerns have been taken into account.

4. DURATION OF VALIDITY

- 4.1 The Applicant shall notify the Director of the commencement of the EIA study. If the EIA study does not commence within 36 months after the date of issue of this EIA study brief, the Applicant shall apply to the Director for a fresh EIA study brief before commencement of the EIA study.

5. REPORTING REQUIREMENTS

- 5.1 In preparing the EIA report, the Applicant shall refer to Annex 11 of the TM for the contents of an EIA report. The Applicant shall also refer to Annex 20 of the TM, which stipulates the guidelines for the review of an EIA report. When submitting the EIA report to the Director, the Applicant shall provide a summary, pointing out where in the EIA report the respective requirements of this EIA study brief and the TM (in particular Annexes 11 and 20) have been addressed and fulfilled.
- 5.2 To facilitate the updating of the ecological information of the Centralised Environmental Database, the Applicant shall provide the raw data of the ecological habitat maps including the project location and boundary, types and locations of habitats, findings of ecological field surveys and species of conservation interest in the assessment area in shapefile or GeoJSON or other format as agreed with the Director. The data shall be submitted in 3 copies of CD-ROM, DVD±R or other suitable means as agreed with the Director.
- 5.3 The Applicant shall supply the Director with hard and electronic copies of the EIA report and the executive summary in accordance with the requirements given in **Appendix N** of this EIA study brief. The Applicant shall, upon request, make additional copies of the above documents available to the public, subject to payment by the interested parties of full costs of printing.
- 5.4 To facilitate enhanced public engagement in the EIA process, the Applicant shall produce 3-dimensional electronic visualisations of the findings of the EIA report, including baseline environmental information, the environmental situations with or without the Project, associated works, supporting facilities and essential infrastructures, key mitigated and unmitigated environmental impacts, and key recommended environmental mitigation measures so that the public can better understand the Project and the associated environmental issues. The visualisations shall be based on the EIA report findings and shall be developed and constructed such that they can be accessed and viewed by the public through an internet browser and/or other tools of 3-dimensional electronic visualisations (i.e. Virtual Reality, Augmented Reality, Mixed Reality) at a reasonable speed and without the need for software license requirement at the user's end. The visualisations and the corresponding raw data with necessary setting(s) that enable full migration into EPD's platform shall be submitted in 10 copies of CD-ROM, DVD±R or other suitable means as agreed with the Director.

6. OTHER PROCEDURAL REQUIREMENTS

- 6.1 If there is any change in the name of the Applicant for this EIA study brief during the course of EIA study, the Applicant must notify the Director immediately.
- 6.2 If there is any key change in the scope of the Project mentioned in sections 1.2 & 1.3 of this EIA study brief and in Project Profile (No. PP-670/2024), the Applicant must seek confirmation from the Director in writing on whether or not the scope of issues covered by this EIA study brief can still cover the key changes, and the additional issues, if any, that the EIA study must also address. If the changes to the Project fundamentally alter the key scope of the EIA study brief, the Applicant shall apply to the Director for a fresh EIA study brief.

7. LIST OF APPENDICES

7.1 This EIA study brief includes the following appendices:

- Appendix A** - Project Location Plan
- Appendix B** - Requirements for Air Quality Impact Assessment
- Appendix B-1** - Air Quality Modelling Guidelines
- Appendix C** - Requirements for Noise Impact Assessment
- Appendix D** - Requirements for Water Quality Impact Assessment
- Appendix D-1** - Hydrodynamic and Water Quality Modelling Requirements
- Appendix E** - Requirements for Waste Management Implications
- Appendix F** - Requirements for Land Contamination Assessment
- Appendix G** - Requirements for Sewage and Sewerage Impact Assessment
- Appendix H** - Requirements for Ecological Impact Assessment (Terrestrial & Marine)
- Appendix I** - Requirements for Fisheries Impact Assessment
- Appendix J** - Requirements for Landscape and Visual Impact Assessment
- Appendix K** - Requirements for Cultural Heritage Impact Assessment
- Appendix L** - Requirements for Hazard to Life Assessment
- Appendix M** - Implementation Schedule of Recommended Mitigation Measures
- Appendix N** - Requirements for EIA Report Documents

END of EIA STUDY BRIEF

August 2024
Environmental Assessment Division
Environmental Protection Department

Appendix B**Requirements for Air Quality Impact Assessment**

The air quality impact assessment shall include the following:

1. Background and Analysis of Activities

- (i) Provision of background information relating to air quality issues relevant to the Project, e.g. description of the types of activities of the Project that may affect air quality during construction and operation stages of the Project.
- (ii) Provision of an account, where appropriate, of the consideration/measures that have been taken into consideration during the planning of the Project to avoid and minimise the air pollution impact. The Applicant shall consider alternative construction methods, phasing programmes and alternative modes of operation to minimise the air quality impact during construction and operational stages of the Project.
- (iii) Presentation of background air quality levels in the assessment area for the purpose of evaluating the cumulative air quality impacts during construction and operation stages of the Project. Projection of future year background air quality can be extracted from “Pollutants in the Atmosphere and their Transport over Hong Kong” (PATH) model released by the Director. If a modification to the emission sources is to be adopted in the PATH model to update the projection of future year background air quality, details of the emission sources adopted in the modification should be clearly presented.

2. Identification of Air Sensitive Receivers (ASRs) and Examination of Emission/Dispersion Characteristics

- (i) Identification and description of existing, committed and planned ASRs that would likely be affected by the Project, including those reflected on the relevant Outline Zoning Plans, Development Permission Area Plans, Outline Development Plans, Layout Plans and other relevant published land use plans, including plans and drawings published by the Lands Department and any land use and development applications approved by the Town Planning Board. The Applicant shall select the assessment points of the identified ASRs that represent the worst impact point of these ASRs. A map clearly showing the location and description such as name of buildings, their uses and height of the selected assessment points and the separation distances of these ASRs from the nearest emission sources shall also be given. For phased development, the Applicant shall review the development programme against the different construction stages to determine whether the occupiers of the early phases could be affected by construction works of later phases, and thus should be included as ASRs.
- (ii) Provision of a list of air pollution emission sources, including any nearby emission sources which are likely to have impact related to the Project based on the analysis of the construction activities and operation activities in Section 1 above. Examples of construction stage emission sources include reclamation and dredging works, slope cutting, excavation and site formation, vehicular movements on unpaved haul road on site, etc. Examples of operational stage emission sources include vehicles emissions from the road of the project and the road network within the assessment area, industrial emissions, odour emission from the proposed revamped fish market, sewage treatment works, livestock farm located within the assessment area, etc. Confirmation regarding the validity of assumptions and the magnitude of activities (e.g. volume of construction material to be handled, etc.) shall be obtained from the relevant government departments/authorities, where applicable, and documented in the EIA report. Methodology of the traffic forecast shall be agreed with Transport

Department.

- (iii) Identification of existing and potential chimneys and obtainment of relevant chimney emission data in the assessment area, where appropriate, by carrying out a survey for assessing the cumulative air quality impact of air pollutants through chimneys. The Applicant shall ensure and confirm that the emission data used in their assessment have been validated and updated by their own surveys. Any errors found in their emission data used may render the submission invalid.
- (iv) The emissions from any concurrent projects identified as relevant during the course of the EIA study shall be taken into account as contributing towards the overall cumulative air quality impact. The impact at the existing, committed and planned ASRs within the assessment area shall be assessed, based on the best information available at the time of assessment.

3. Construction Phase Air Quality Impact

- (i) The Applicant shall follow the requirements stipulated under the Air Pollution Control (Construction Dust) Regulation to ensure that construction air quality impacts are effectively controlled. Construction air quality impact assessment within the assessment area should be conducted qualitatively.
- (ii) Where necessary, the Applicant shall consider and evaluate direct mitigation measures, including but not limited to water-spraying, re-scheduling construction programme to minimise concurrent air quality impact arising from different construction sites, for fugitive dust, gaseous and odour emission control. The Applicant shall also consider connecting construction plant and equipment to mains electricity supply and avoid use of diesel generators and diesel-powered equipment as far as practicable to minimise air quality impact arising from the construction machinery. The Applicant shall describe the means of transportation and their routings involved, with a view to addressing potential air quality impact caused by transportation activities. Any mitigation measures recommended for fugitive dust, gaseous and odour emission control should be well documented in the EIA report.
- (iii) A monitoring and audit programme for the construction phase of the Project shall be devised to verify the effectiveness of the proposed control measures so as to ensure proper control of construction air quality impacts.

4. Operational Phase Air Quality Impact

- (i) The Applicant shall assess the expected air quality impact at the identified ASRs within the assessment area as defined in Section 3.4.4.2 of this study brief based on an assumed reasonably worst-case scenario under normal operating conditions of the Project.
- (ii) If the assessment indicates likely exceedances of the recommended limits in the TM at the identified ASRs, a quantitative assessment should be carried out to evaluate the operational phase air quality impacts at the identified ASRs. The Applicant shall follow the methodology set out in Section 5 below when carrying out the quantitative assessment.
- (iii) If necessary, a monitoring and audit programme for the operational phase of the Project shall be devised to verify the effectiveness of the proposed control measures so as to ensure proper control of operational air quality impacts.

5. Quantitative Assessment Methodology

- (i) The Applicant shall conduct the quantitative assessment by applying the general principles enunciated in the modelling guidelines in **Appendix B-1** while making

allowance for the specific characteristic of the Project. This specific methodology must be documented in such level of details, preferably assisted with tables and diagrams, to allow the readers of the EIA report to grasp how the model has been set up to simulate the situation under study without referring to the model input files. In case of doubt, prior agreement between the Applicant and the Director on specific modelling details should be sought.

- (ii) For the purpose of assessing the compliance with the criteria as stated in Section 1 of Annex 4 of the TM, the Applicant shall identify the key/representative air pollution parameters (types of pollutants and the averaging time concentrations) to be evaluated and provide explanation for selecting these parameters for assessing the impact of the Project.
- (iii) Calculation of the relevant pollutant emission rates for input to the model and map(s) showing road links and emission sources shall be presented in the EIA report. A summary table of the emission rates with detailed calculations shall be presented in the EIA report. The Applicant shall ensure consistency between the text description and the model files at every stage of submission for review.
- (iv) For operational phase air quality impact assessment, the air pollution impacts of future road traffic shall be calculated based on the highest emission strength from the road vehicles in the assessment area within the next 15 years after the first population intake year of the project or within the next 5 years after the full population intake year of the Project, whichever is later. The Applicant shall demonstrate that the selected year of assessment represents the highest emission scenario given the combination of vehicular emission factors and traffic flow for the selected year. The Applicant may use EMFAC-HK model released by the Director to determine the Fleet Average Emission Factors, taking into account vehicle fleet mix and other necessary data on each road section. Vehicle emissions, including running, start/idling emission, at existing and future public transport interchanges, depots and parking sites, if any, that would contribute significantly to the overall cumulative air quality impact at identified ASRs shall be taken into account in the assessment. Unless otherwise agreed by the Director, the latest version of the EMFAC-HK model shall be used. Use of any alternatives to the EMFAC-HK model shall be agreed with the Director. The traffic forecast data and assumptions, such as the hourly traffic volume, average speed, vehicle composition, number of trips, soaking and idling time data, the exhaust technology fractions, vehicle age/population distribution, etc., that are used in the assessment shall be presented.
- (v) Emissions from road traffic, marine vessels, industrial sources, odour emission sources and nearby concurrent projects within the assessment area, which contribute to the cumulative air quality impact of the identified ASRs, should be taken in account and be included in the dispersion models accepted by the Director.
- (vi) For projection of the future background air quality, the Applicant may use the PATH model released by the Director, taking into consideration the major air pollutant emission sources projected for Hong Kong and nearby regions. Unless otherwise agreed by the Director, the latest version of the PATH model shall be used. If any modification is made to the emission sources in PATH model or an alternative model is used, details of the emission sources adopted should be clearly presented. In general, major point sources (referred in Section 2.3 of EPD's "Guidelines on Assessing the 'TOTAL' Air Quality Impacts") located within 4 kilometres from the identified ASRs shall be reviewed if they have direct contributions of air quality impacts to the ASRs on the concerned pollutants of the assessment. In such case, these point sources shall be simulated by dispersion model to account for their induced sub-grid scale spatial variations in background air quality. The exact approach shall be determined according to the case specific situation and subject to the agreement by the Director.

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- (vii) The Applicant shall calculate the cumulative air quality impact at the identified ASRs and compare these results against the criteria set out in Section 1 of Annex 4 in the TM. The predicted air quality impacts shall be presented in the form of summary table(s) and pollution contours to cover the whole assessment area, to be evaluated against the relevant air quality standards and on any effect they may have on the land use implications. Plans of a suitable scale shall be used to present pollution contours over the whole assessment area to allow buffer distance requirements to be determined properly.
 - (viii) If vehicle tunnels and/or full enclosures are proposed in the Project, it is the responsibility of the Applicant to ensure that the air quality inside these proposed structures shall comply with EPD's "Practice Notes on Control of Air Pollution in Vehicle Tunnels". When assessing air quality impact due to emissions from tunnels/full enclosures, the Applicant shall ensure prior agreement with the relevant ventilation design engineer over the amount and the types/kinds of pollutants emitted from these tunnels/full enclosures; and such assumptions shall be clearly and properly documented in the EIA report.
 - (ix) If there are any direct technical noise remedies recommended in the EIA study, the air quality implication due to these technical remedies shall be assessed. The Applicant shall highlight clearly the locations and types of agreed noise mitigating measures (where applicable), be they noise barriers, road enclosures and their portals, and affected ASRs, on contour maps for reference.

6. Mitigation Measures for Air Quality Impact

Consideration for Mitigation Measures

- (i) When the predicted air quality impact exceeds the criteria set in Section 1 of Annex 4 in the TM, the Applicant shall consider mitigation measures to reduce the air quality impact on the identified ASRs and the development. The feasibility, practicability, programming and effectiveness of the recommended mitigation measures shall be assessed and documented in the EIA report. Specific reasons for not adopting certain workable mitigation measures to reduce the air quality to a level meeting the criteria in the TM or to maximise the protection of the ASRs as far as possible should be clearly substantiated and documented in the EIA report.

Evaluation of Residual Air Quality Impact

- (ii) Upon consideration of mitigation measures, if the mitigated air quality impact still exceeds the relevant criteria in Annex 4 of the TM, the Applicant shall identify, predict, and evaluate the residual air quality impact in accordance with Section 4.4.3 and Section 4.5.1(d) of the TM.

7. Submission of Emission Calculation Details and Model Files

All input and output file(s) of model run(s) including those files for the generation of the pollution contours and emission calculations worksheets shall be submitted to the Director in electronic format together with the submission of the EIA report.

Appendix B-1

Air Quality Modelling Guidelines

[The information contained in this Appendix is meant to assist the Applicant in performing the air quality assessment. The Applicant must exercise professional judgment in applying this general information.]

The air quality modelling guidelines shall refer to the following guidelines as published on the website of the Environmental Protection Department:

https://www.epd.gov.hk/epd/english/environmentinhk/air/guide_ref/guide_aqa_model.html

Appendix C**Requirements for Noise Impact Assessment**

The noise impact assessment shall include the following:

1. Description of the Noise Environment

- 1.1 The Applicant shall describe the prevailing noise environment in the EIA report.
- 1.2 The Applicant shall conduct prevailing background noise surveys to determine the standards for evaluating noise impact from fixed noise sources. The respective noise environment shall be documented in the EIA report.

2. Construction Noise Impact Assessment**2.1 Construction Noise Impact Assessment Methodology**

- 2.1.1 The Applicant shall carry out construction noise impact assessment (excluding percussive piling) of the Project during daytime, i.e. 7am to 7pm, on weekdays other than general holidays in accordance with methodology in Sections 5.3 and 5.4 of Annex 13 of the TM.
- 2.1.2 The Applicant shall conduct a qualitative assessment in the EIA to demonstrate no adverse construction noise impact would be associated with the project by adopting quieter construction method and equipment during the construction stages. The Applicant shall firstly identify the major noise sources/activities, then propose the corresponding quiet construction methods and noise mitigation measures, and commit to submitting a Construction Noise Management Plan (CNMP) to the Director.

2.2 Identification of Construction Noise Impact**2.2.1 *Identification of Assessment Area and NSRs***

- (a) The Applicant shall propose the assessment area for agreement of the Director before commencing the assessment. The assessment area for the construction noise impact assessment shall generally include areas within 300 metres from the boundary of the proposed development and works of the Project as identified in the EIA.
- (b) The Applicant shall identify the existing, committed and planned NSRs in the assessment area and select assessment points to represent identified NSRs for carrying out construction noise impact assessment.
- (c) The assessment points shall be confirmed with the Director before commencing the assessment and may be varied subject to the best and latest information available during the course of the EIA study.
- (d) A map showing the location and description such as name of building, use, and floor of each and every selected assessment point shall be given. Photographs of existing NSRs shall be appended to the EIA report.

2.2.2 *Inventory of Noise Sources*

The Applicant shall identify an inventory of noise sources for representative construction equipment for the purpose of construction noise impact assessment. Validity of the inventory shall be confirmed with the relevant government departments, authorities or

the Applicant's construction professionals and documented in the EIA report.

2.3 Mitigation of Construction Noise Impact

2.3.1 The Applicant shall consider and evaluate the application of direct mitigation measures including but not limited to, quieter construction method and equipment, barriers, enclosures, etc. The feasibility, practicability, programming and effectiveness of the recommended mitigation measures shall be qualitatively assessed. Any direct mitigation measures recommended shall be well documented in the report. Specific reasons for not adopting certain direct mitigation measures to maximise the protection for the NSRs as far as possible should be clearly substantiated and documented in the EIA report.

2.4 Construction Noise Management Plan (CNMP)

2.4.1 The Applicant shall propose to submit a CNMP to the Director. The CNMP shall contain the quantitative construction noise impact assessment, the adopted quieter construction method and equipment, noise mitigation measures and the construction noise impact monitoring and audit programme, with reference to the updated and identified noise mitigation measures once available and in any case before the tender invitation if there is any change to the construction noise mitigation measures recommended in the EIA report and before the commencement of construction of the project. The Applicant shall consider different phases of the Project in the CNMP. Any technical constraint that would hinder the use of these quieter construction method and equipment shall be evaluated and clearly recorded in the assessment.

2.4.2 The CNMP shall include an implementation schedule clearly listing out the mitigation measures, the implementation party, location and timing of implementation. Mitigation measures recommended and requirements specified in the CNMP shall be fully implemented.

3. Road Traffic Noise Impact Assessment

3.1 Road Traffic Noise Impact Assessment Methodology

3.1.1 The Applicant shall calculate traffic noise levels in respect of each road section and the overall noise levels from combined road sections (including existing, new/altered road sections) at the NSRs. The Applicant shall propose the assessment methodology for agreement of the Director before commencing the assessment in accordance with Section 5.1 of Annex 13 of the TM.

3.1.2 *Input Data of Computational Model*

The Applicant shall provide the input data set of the road traffic noise computational model adopted in the assessment for various scenarios. The data shall be in electronic text file (ASCII format) containing road segments, barriers and NSRs information. CD-ROM(s) containing the above data shall be submitted together with the EIA report.

3.2 Identification of Road Traffic Noise Impact

3.2.1 *Identification of Assessment Area and NSRs*

- (a) The Applicant shall propose the assessment area for agreement of the Director before commencing the assessment. The assessment area for the road traffic noise impact shall generally include areas within 300 metres from the boundary of the proposed development and works of the Project as identified in the EIA.

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- (b) The Applicant shall identify all existing, committed and planned NSRs in the assessment area and select assessment points to represent identified NSRs for carrying out quantitative road traffic noise impact assessment as described below.
 - (c) The assessment points shall be confirmed with the Director prior to the commencement of the quantitative road traffic noise impact assessment and may be varied subject to the best and latest information available during the course of the EIA study.
 - (d) A map showing the location and description such as name of building, use, and floor of each and every selected assessment point shall be given. Photographs of existing NSRs shall be appended to the EIA report.
 - (e) For planned noise sensitive land uses without committed site layouts, the Applicant shall use the relevant land use and planning parameters and conditions to work out representative site layouts for road traffic noise impact assessment purpose. However, such parameters and conditions and the representative site layouts together with any constraints identified shall be confirmed with the relevant responsible parties including the Planning Department and Lands Department.

3.2.2 *Inventory of Noise Sources*

- (a) The Applicant shall analyse the scope of the proposed road alignment(s) to identify appropriate new and existing road sections for the purpose of road traffic noise impact assessment. Road sections to be included in road traffic noise impact assessment shall be confirmed with the Director prior to the commencement of the assessment. In determining whether the traffic noise impact due to road improvement project/works is considered significant, detailed information with respect to factors including at least the change of nature of road, change of alignment and change of traffic capacity or traffic composition, and change of traffic flow pattern in the associated road networks, shall be assessed. Figures showing extents of new/altered roads, existing roads and the associated road networks shall be provided in the EIA report.
- (b) Methodology of the traffic forecast shall be agreed with the Transport Department and the traffic flow prediction of road sections for the purpose of road traffic noise impact assessment shall be documented in the EIA report.

3.3 Prediction and Evaluation of Road Traffic Noise Impact

3.3.1 *Scenarios*

- 3.3.1.1 The Applicant shall consider different phases of the Project in the road traffic noise impact assessment.
 - (a) The Applicant shall quantitatively assess the road traffic noise impact of the Project, with respect to the criteria set in Annex 5 of the TM, of unmitigated scenario and mitigated scenario at assessment year(s). The assessment year(s) shall be made reference to Section 5.1 in Annex 13 of the TM.
 - (b) The Applicant shall provide the input data sets of traffic noise model prediction model adopted in the EIA study as requested by the Director for the following scenarios:
 - (i) unmitigated scenario at assessment year(s);

- (ii) mitigated scenario at assessment year(s); and
- (iii) prevailing scenario for indirect mitigated measures eligibility assessment;

3.3.2 *Prediction of Noise Impact*

- (a) The Applicant shall present the predicted noise levels in L_{10} (1 hour) dB(A) at the selected assessment points at various representative floor levels (in m P.D.) on tables and plans of suitable scale.
- (b) The assessment shall cover the cumulative road traffic noise impact resulting from the road traffic noise due to the Project and the existing road network on existing, committed and planned NSRs within the assessment area.
- (c) The potential road traffic noise impact under different scenarios shall be quantified by estimating the total number of dwellings, classrooms and other NSRs that will be exposed to noise impact exceeding the criteria set in Annex 5 in the TM.

3.4 Mitigation of Road Traffic Noise Impact

3.4.1 *Direct Mitigation Measures*

- (a) Where the predicted road traffic noise impact exceeds the criteria set in Annex 5 of the TM, the Applicant shall consider and evaluate direct mitigation measures including but not limited to low noise road surface, noise barrier/enclosure, screening by noise tolerant building, etc. The feasibility, practicability, programming and effectiveness of the recommended mitigation measures shall be assessed. Any direct mitigation measures recommended should be well documented in the report. Specific reasons for not adopting certain direct mitigation measures to reduce the noise to a level meeting the criteria in the TM or to maximise the protection for the NSRs as far as possible should be clearly quantified and documented in the EIA report.
- (b) The total number of NSRs that will be benefited from and be protected by the provision of direct mitigation measures should be provided. The total number of other NSRs that will still be exposed to noise above the criteria with the implementation of the recommended direct mitigation measures shall be quantified.
- (c) For planned noise sensitive uses which will still be affected even with practicable direct mitigation measures at source in place, the Applicant shall propose, evaluate and confirm the practicability of additional direct mitigation measures within the planned noise sensitive uses and shall make recommendations on how these noise sensitive uses will be designed for the information and agreement of relevant parties including the Planning Department and Lands Department.
- (d) The Applicant shall take into account agreed environmental requirements /constraints identified in the EIA study to assess the development potential of concerned sites which shall be made known to the relevant parties.

3.4.2 *Indirect Mitigation Measures*

- (a) Upon exhaust of direct mitigation measures, where the predicted road traffic noise impact still exceeds the criteria set in Table 1A of Annex 5 of the TM, the

Applicant shall consider indirect mitigation measures in the form of window insulation and air-conditioning and evaluate in accordance with Section 6.3 in Annex 13 of the TM.

- (b) The Applicant shall identify and estimate the total number of existing dwellings, classrooms and other noise sensitive elements which may qualify for indirect mitigation measures, the associated costs and any implications for such implementation.
- (c) For the purpose of determining eligibility of the affected premises for indirect mitigation measures, reference shall be made to methodology accepted by the recognised national/international organisation or methodologies adopted for Hong Kong projects having similar issues on proposing an assessment methodology for determining eligibility of the indirect mitigation measures which shall be confirmed with the Director with reference to Section 4.4.2 of the TM, prior to the commencement of the assessment.

3.5 Evaluation of Residual Road Traffic Noise Impact

Upon exhaust of direct and indirect mitigation measures, if the mitigated noise impact still exceeds the relevant criteria in Annex 5 of the TM, the Applicant shall identify, predict and evaluate the residual road traffic noise impact in accordance with Section 4.4.3 of the TM and Section 6.3 in Annex 13 of the TM.

4 Fixed Noise Sources Impact Assessment

4.1 Fixed Noise Sources Impact Assessment Methodology

- 4.1.1 The Applicant shall carry out fixed noise sources impact assessment from the Project in accordance with methodology in Section 5.2 of Annex 13 of the TM.
- 4.1.2 The Applicant shall conduct a qualitative assessment to demonstrate no adverse fixed noise sources impact would be associated with the project planned fixed noise sources of the project by committing to adopt appropriate noise mitigation measures during the operation periods. The Applicant shall identify the major noise sources/activities, and commit to submitting a Fixed Noise Source Management Plan (FNMP) to the Director. For existing fixed noise sources, the Applicant shall conduct a quantitative assessment to demonstrate no adverse fixed noise impact on any identified planned NSRs within the project boundary.

4.2 Identification of Fixed Noise Sources Impact

4.2.1 *Identification of Assessment Area and NSRs*

- (a) The Applicant shall propose the assessment area for agreement of the Director before commencing the assessment. The assessment area for the fixed noise sources impact shall generally include areas within 300 metres the boundary of the proposed development and works of the Project as identified in the EIA.
- (b) The Applicant shall identify the existing, committed and planned NSRs in the assessment area and select assessment points to represent identified NSRs for carrying out the fixed noise sources impact assessment described below.
- (c) The assessment points shall be confirmed with the Director prior to the commencement of the fixed noise sources impact assessment and may be varied subject to the best and latest information available during the course of the EIA study.

- (d) A map showing the location and description such as name of building, use, and floor of each and every selected assessment point shall be given. Photographs of existing NSRs shall be appended to the EIA report.
- (e) For planned noise sensitive land uses without committed site layouts, the Applicant shall use the relevant land use and planning parameters and conditions to work out representative site layouts for fixed noise sources impact assessment purpose. However, such parameters and conditions together with representative site layouts and any constraints identified shall be confirmed with the relevant responsible parties including Planning Department and Lands Department.

4.2.2 *Inventory of Noise Sources*

- (a) The Applicant shall identify an inventory of noise sources for fixed noise sources impact assessment. The inventory of noise sources shall include any existing and planned fixed noise sources
- (b) The Applicant shall provide document or certificate, where applicable, accepted by recognised national/international organisation, for the sound power level of each type of fixed noise sources. (c) Validity of the inventory shall be confirmed with the relevant government departments/authorities where applicable and documented in the EIA report.

4.3 Mitigation of Fixed Noise Sources Impact

- 4.3.1 The Applicant shall consider and evaluate the application of direct mitigation measures including but not limited to quieter equipment, silencer, barrier, enclosures, screening by noise tolerant building, etc. The feasibility, practicability, programming and effectiveness of the recommended mitigation measures shall be qualitatively assessed. Any direct mitigation measures recommended should be well documented in the report. Specific reasons for not adopting certain direct mitigation measures to maximise the protection for the NSRs as far as possible should be clearly substantiated and documented in the EIA report.

4.4 Fixed Noise Source Management Plan (FNMP)

- 4.4.1 The Applicant shall propose to submit a FNMP to the Director. The FNMP will contain the quantitative fixed noise source impact assessment, covering planned and existing fixed noise sources, noise mitigation measures and the fixed noise source impact monitoring and audit programme, with reference to the updated and identified inventories once available and in any case before commencement of construction of the Project.
- 4.4.2 The FNMP shall include an implementation schedule clearly listing out the mitigation measures, the implementation party, location and timing of implementation. Mitigation measures recommended and requirements specified in the FNMP shall be fully implemented.

5. Rail Noise Impact Assessment

- 5.1 The Applicant shall carry out rail noise impact assessment in respect of air-borne (where applicable) and ground-borne noise arising from the planned rail lines (where applicable) within the assessment area in the course of the EIA study, with respect to the acceptable levels contained in Table IA in Annex 5 of the TM. The Applicant shall propose assessment area, methodology and computational model for agreement of the Director, with reference to Section 4.4.2 of the TM, prior to the commencement of the assessment.

5.2.1 Identification of Rail Noise Impact

- (a) The Applicant shall identify planned NSRs in the proposed developments in the assessment area and select assessment points to represent identified NSRs for carrying out rail noise impact assessment.
- (b) The Applicant shall identify and quantify as far as practicable an inventory of noise sources taking into consideration rail traffic data, rail design, type of rolling stock, and allow for deterioration in rail and rolling stock condition from brand new to an operating level, the reasonable worst case scenario and any other planned noise sources.
- (c) The Applicant shall present the potential noise impact in Leq(30min) during the day and at night at the NSRs at various representative floor levels (in m P.D.) on tables and plans of suitable scale, if quantitative assessment method is adopted.

5.3 Mitigation of Rail Noise Impact

- 5.3.1 Based on the above noise assessment result, the Applicant shall define the constraints including assumed configuration of the rail (e.g. underground, viaduct or at grade), and make recommendations for noise amelioration / direct mitigation measures for any planned NSR which would be subject to predicted noise level in excess of the relevant planning criteria and statutory limits in the appropriate design year.

6. Helicopter Noise Impact Assessment

6.1 Helicopter Noise Impact Assessment Methodology

- 6.1.1 The Applicant shall conduct helicopter noise impact assessment in the event that there is any planned NSR within the boundary of the Project which is within 300 metres of any existing helipad. The Applicant shall propose methodology and computational model for agreement of the Director, with reference to Section 4.4.2 of the TM, prior to the commencement of the assessment.

6.2. Identification of Helicopter Noise Impact

6.2.1. Identification of Assessment Area and NSRs

- (a) The Applicant shall propose the assessment area for agreement of the Director before commencing the assessment. The assessment area for helicopter noise impact shall include area of planned NSRs on the proposed Project under or near to the flight tracks in vicinity of the existing helicopter pad(s).
- (b) The Applicant shall identify all planned NSRs on the proposed Project in the assessment area.
- (c) For planned noise sensitive land uses without committed site layouts, the Applicant should use the relevant planning parameters to work out representative site layouts for helicopter noise assessment purpose. However, such assumptions together with any constraints identified shall be agreed by the relevant responsible parties

6.2.2. Inventory of Noise Sources

- (a) The Applicant shall identify and quantify an inventory of noise sources for helicopter noise impact assessment. The inventory of noise sources shall include, but not limited to, helicopter noise characteristics (such as data representing noise emission and performance, etc.) for all potential helicopter operating at the existing and planned helicopter pad(s). The information of the helicopter noise characteristics shall be referred

to a database accepted by recognized national/international organization, as agreed by the Director.

- (b) Validity of the above data shall be confirmed with the relevant government departments/authorities and documented in the EIA report.

6.3. Prediction and Evaluation of Helicopter Noise Impact

6.3.1. Scenarios

- (a) The Applicant shall quantitatively assess the helicopter noise impact from the operation of the existing helicopter pad(s) during helicopters approaching and departure from the helicopter pad(s), with respect to the criteria set in Annex 5 of the TM, of unmitigated scenario and mitigated scenario at assessment years of various operation modes including, but not limited to,

- (i) the worst operation mode which represents the maximum noise emission in connection with helicopter types, flight paths, flight frequency and flight hours, and;
- (ii) any other operation modes as agreed by the Director.

- (b) Validity of the above operation modes shall be confirmed with the relevant government departments/authorities and documented in the EIA report.

6.3.2. Prediction of Noise Impact

- (a) The Applicant shall present the predicted helicopter noise impact in contours, with reference to criteria set in Annex 5 of the TM, including contours for each scenario assessed under various operation modes, on plans of suitable scale and documented in the EIA report. To determine the extent of the impact, the Applicant shall provide maps at an adequately detailed scale (not less than 1:5000) to show the contours.
- (b) The potential helicopter noise impact under different scenarios and operation modes shall be quantified by estimating the total number of dwellings, classrooms and other NSRs that will be exposed to noise impact exceeding the criteria set in Annex 5 in the TM.

6.4. Mitigation of Helicopter Noise Impact

6.4.1 Direct Mitigation Measures

Where the predicted helicopter noise impact exceeds the criteria set in Annex 5, TM, the Applicant shall consider and evaluate direct mitigation measures including but not limited to noise barrier/enclosure, screening by noise tolerant buildings, etc. The feasibility, practicability, programming and effectiveness of the recommended mitigation measures shall be assessed. Any direct mitigation measures recommended should be well documented in the report. Specific reasons for not adopting certain direct mitigation measures to reduce the noise to a level meeting the criteria in the TM or to maximize the protection for the NSRs as far as possible should be clearly substantiated and documented in the EIA report.

6.5. Evaluation of Residual Helicopter Noise Impact

Upon exhaust of direct mitigation measures, if the mitigated noise impact still exceeds the relevant criteria in Annex 5 of TM, the Applicant shall identify, predict and evaluate the residual helicopter noise impact in accordance with Section 4.4.3 of the TM and estimate the total number of existing dwellings, classrooms and other noise sensitive elements that will be exposed to residual noise impact exceeding the criteria set in Annex 5 of the TM.

7. Submission of Noise Calculation Details and Model Files

- 7.1 All input and output file(s) of model run(s) shall be submitted to the Director in electronic format together with the submission of the EIA report.

Appendix D**Requirements for Water Quality Impact Assessment**

1. The Applicant shall identify and analyse physical, chemical and biological disruptions of the water system(s) arising from the construction and operation of the Project.
2. The Applicant shall predict, quantify and assess any water quality impacts arising from the construction and operation of the Project by appropriate mathematical modelling and/or other techniques proposed by the Applicant and approved by the Director. The mathematical modelling requirements are set out in Appendix D-1.
3. The assessment shall include, but not limited to the water quality impacts resulting from change of hydrological regime of the drainage channel/water courses:
 - (i) The potential hydrodynamic impact and water quality impact due to any reclamation, breakwater and change in coastline;
 - (ii) The water quality impacts arising from marine works including but not limited to impacts on suspended solid level, dissolved oxygen concentration, contaminant and nutrient release and those specified in the ProPECC Practice Note 1/94 on “Construction Site Drainage”, during construction;
 - (iii) The water quality impacts of surface runoff containing oil/grease and suspended solids, wastewater generated from facilities and sewage generated from the workforce during the operational stage;
 - (iv) Should sewage treatment works be constructed under the proposed development, the analysis on operation arrangement of the plant with regard to the frequency, duration, volume and flow rate of the discharges, and their corresponding pollutants;
 - (v) Should sewage pumping stations or sewage treatment works be constructed under the proposed development, the water quality impacts of temporary and accidental discharges from the said facilities during the construction and operation phases of the Project to the surrounding water bodies;
 - (vi) Should sewage pumping stations or sewage treatment works be constructed under the proposed development, the water quality impacts of chemical spillage during the construction and operation phases of the Project, in particular the accidental spillage associated with transfer and storage of chemicals, during the operation of the Project; and
 - (vii) Potential water quality impacts on wetland, river, intertidal habitat, and other water sensitive receivers which may be affected by the Project.
4. The Applicant shall address water quality impacts due to the construction phase and operational phase of the Project. Essentially, the assessment shall address the following:
 - (i) collect and review background information on affected existing and planned water systems, their respective catchments and sensitive receivers which might be affected by the Project;
 - (ii) characterise water quality of the water systems and sensitive receivers, which might be affected by the Project based on existing best available information and through appropriate site survey and tests when existing data are insufficient;

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- (iii) identify and analyse relevant existing and planned future activities, beneficial uses and water sensitive receivers related to the affected water system(s). The Applicant should refer to, *inter alia*, those developments and uses earmarked on the relevant Outline Zoning Plans, Development Permission Area Plans, Outline Development Plans and Layout Plans, and any other relevant published land use plans, including plans and drawings published by Lands Department and any land use and development applications approved by the Town Planning Board;
 - (iv) identify pertinent water quality objectives and establish other appropriate water quality criteria or standards for the water system(s) and the sensitive receivers identified in 4(i), 4(ii) and 4(iii) above;
 - (v) review the specific construction methods and configurations, and operation of the Project to identify and predict the likely water quality impacts arising from the Project;
 - (vi) identify any alteration of any water courses, natural streams, ponds, wetlands, change of water holding/flow regimes of water bodies, change of catchment types or areas, erosion or sedimentation due to the Project and any other hydrological changes in the assessment area;
 - (vii) identify and quantify existing and likely future water pollution sources, including point discharges and non-point sources discharges to the water system(s), surface water runoff, sewage from workforce and future occupants/users, thermal/ cooling water discharge from District Cooling System, discharge containing biocide (if any), and any other polluted discharge generated from the construction and operation of the Project;
 - (viii) provide an emission inventory on the quantities and characteristics of those existing and future pollution sources in the assessment area. Field investigation and laboratory test shall be conducted as appropriate to fill relevant information gaps;
 - (ix) report the adequacy of the existing sewerage and sewage treatment facilities for the handling, treatment and disposal of wastewater arising from the Project as required in section 3.4.9 of this EIA study brief;
 - (x) identify and quantify the water quality impacts based on the findings and recommendations from the Sewerage and Sewage Treatment Implications Assessment under section 3.4.9 of this EIA study brief. The water quality concerns shall include, but not limited to, possible sewage overflow or emergency discharge due to capacity constraints of the sewerage system, and emergencies arising from the Project;
 - (xi) predict and quantify the impacts on the water system(s) and its/their sensitive receivers due to those alternations and changes identified in (vi) above, and the pollution sources identified in (vii) above. The prediction shall take into account and include possible different construction and operation phases of the Project;
 - (xii) assess the cumulative impacts due to other related concurrent and planned projects, activities or pollution sources that may have a bearing on the environmental acceptability of the Project;
 - (xiii) analyse the provision and adequacy of existing and planned future facilities to handle or reduce pollution arising from the point and non-point sources identified in (vii) above;

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- (xiv) develop effective infrastructure upgrading or provision, contingency plan, water pollution prevention and mitigation measures to be implemented during the construction and operation phases, including temporary/accidental/emergency sewage discharge in the case of sewage system, so as to reduce the water quality impacts to within standards. Effluent generated from the Project shall require appropriate collection, treatment and disposal in considering the Deep Bay catchment. Requirements to be incorporated in the Project contract document shall also be proposed;
 - (xv) investigate and develop best management practices to reduce storm water and non-point source pollution during construction and operation as appropriate;
 - (xvi) recommend appropriate mitigation measures, including a contingency plan, to minimise the duration and impact of emergency discharges during operation stage of the Project;
 - (xvii) evaluate and quantify residual impacts on water system(s) and the sensitive receivers with regard to the appropriate water quality objectives, criteria, standards or guidelines. If the mitigated water quality impact still exceeds the relevant criteria in Annex 6 of TM, the Applicant shall identify, predict and evaluate the residual water quality impact in accordance with Section 4.4.3 of the TM and estimate the significance of the residual impact to the water system(s) and the water sensitive receivers;
 - (xviii) should sewage treatment works be constructed under the proposed development, evaluate, predict and characterize the effluent characteristics of the Project with different levels of treatment and disinfection processes. The Applicant shall predict the effluent characteristics by making reference to the influent characteristics from sewage, anticipated performance of the treatment and disinfection processes (if applicable) at the proposed sewage treatment works, the findings of previous studies, and conducting additional samplings and tests if needed; and
 - (xix) should sewage pumping station or sewage treatment works be constructed under the proposed development, recommend appropriate mitigation measures, including a contingency plan, to minimise the duration and impacts of temporary/accidental / emergency discharges during the operation stage of the Project.

Appendix D-1**Hydrodynamic and Water Quality Modelling Requirements****1. Water Quality Modelling Plan**

- (i) The Applicant shall submit a Water Quality Modelling Plan for agreement with EPD before commencement of modelling assessment. The Plan shall demonstrate that the models meet the requirements as stipulated under the sections of Modelling Software, Model Details – Setup, Calibration and Validation, and Model Details – Simulation (Sections 2 to 4) in this Appendix. The Plan shall also set out the methodology for the modelling assessment in accordance with the requirements as stipulated under the Modelling Assessment section (Section 5) in this Appendix.

2. Modelling Software

- (i) The modules, D-Flow Flexible Mesh and D-Water Quality, of the Delft3D Flexible Mesh (DFM) Suite modelling software shall be used to simulate the far field hydrodynamic and water quality conditions of the water bodies under different representative scenarios of this Study.
- (ii) An initial dilution model shall be used to characterize the initial mixing of the effluent discharge, and to estimate the terminal level and size of the plume to be fed into the far field water quality model where necessary. The initial dilution model shall have been proven with successful applications locally and overseas (such as Cormix and VISJET).

3. Model Details – Setup, Calibration and Validation

- (i) The Applicant shall locally refine the DFM model provided by EPD (HK-DFM Model, version 202210 or later, available in the Centralised Environmental Database of EPD); and update the model input such as pollution loading inventory, coastline, bathymetry, and other model configurations, where necessary, to suit the needs of this Study.
- (ii) The HK-DFM Model refined by the Applicant shall be properly calibrated and validated against the latest available field data and checked against the original HK-DFM Model before use in this Study. The field data set for calibration and validation shall be agreed with EPD.
- (iii) If nested modelling is considered to be absolutely necessary, the Applicant shall use the refined HK-DFM Model (refers to paragraphs (i) and (ii) of Section 3 of this Appendix) to generate the open boundary conditions for the nested / detailed local model as appropriate. The Applicant shall demonstrate that the use of the nested / detailed local model will not eliminate the essential features for hydrodynamic and water quality processes in the area of concern. In addition, the Applicant shall demonstrate to the satisfaction of EPD that the results of the nested / detailed local model at all key monitoring points are highly consistent with and closely resembling those of the refined HK-DFM Model in selected scenario(s) for the Study (e.g. the baseline scenario) as well as available field data.
- (iv) In addition to the model simulation of selected study period including calibration and validation runs, proper model spin-up shall be carried out to ensure that the model results

- have largely stabilised. Spin-up test results shall be provided to demonstrate that the model is sufficiently spun up to minimize any numerical artifacts from initial conditions.
- (v) For the purpose of calibration and validation, the model shall run for at least a real sequence of 15-day spring-neap tidal cycle (excluding model spin up) each for the dry and the wet seasons.
 - (vi) The hydrodynamic model shall satisfactorily reproduce the observed variations of tide level and tidal current (in terms of magnitude and direction), and the temporal variations of salinity along the water column. In general, model calibration and validation shall achieve the following level of fitness with field data as far as possible.

<u>Parameters</u>	<u>Level of fitness with field data</u>
(a) tidal elevation (@)	< 8 %
(b) maximum phase error at high water and low water	< 20 minutes
(c) maximum current speed deviation	< 30 %
(d) maximum phase error at peak speed	< 20 minutes
(e) maximum direction error at peak speed	< 15 degrees
(f) maximum salinity deviation	< 2.5 ppt

@ Root mean square of the error including the mean and fluctuating components shall meet the criteria at no less than 80% of the monitoring stations in the model domain.

4. Model Details – Simulation

- (i) The water quality modelling results shall be qualitatively explainable, and any identifiable trend and variations in water quality shall be reproduced by the model. The water quality model shall be able to simulate and take into account the interaction of dissolved oxygen, phytoplankton, organic and inorganic nitrogen, phosphorus, silicate, BOD, salinity, temperature, suspended solids, contaminants release of dredged and disposed material, air-water exchange, E. coli and benthic processes. Reference shall be made to Water Quality Objectives (WQOs) of the corresponding Water Control Zone (WCZ) as appropriate.
- (ii) The model shall take into account the processes of settling, deposition, erosion and re-suspension when assessing impacts of sediment loss due to marine works. The values of the modelling parameters shall be agreed with EPD. Contaminants release and DO depletion during dredging and dumping shall be simulated by the model.
- (iii) The model shall incorporate the physical processes of thermal discharge and flow abstraction, buoyancy effect of the thermal plume, and surface heat exchange when assessing impacts of thermal discharge. Dispersion of biocides in the discharge shall also be simulated with appropriate decay rates.
- (iv) In general, grid size within and around the study area of the Project shall be less than 400 m in open waters and less than 75 m around discharge points or sensitive receivers. The grid shall also be able to reasonably represent coastal features existing and proposed in the Project. The grid schematization shall be agreed with EPD.
- (v) The pollution load inventory for water quality modelling shall include both the

background and project pollution loads. The Applicant may adopt the pollution load inventory provided by EPD as the background pollution loads. Any update or revision to the background pollution loads as well as the project pollution loads shall be justified and agreed with EPD.

5. Modelling Assessment

- (i) The assessment shall include both the construction and operation stages of the Project. Potential impacts of the water quality due to the Project, and potential changes in hydrodynamic regime due to any breakwater construction, reclamation, other works involving coastline and bathymetry changes, and/or major discharges (such as brine discharge from desalination plants) under the Project shall be assessed. Where appropriate, the assessment shall also include maintenance dredging. Scenarios to be assessed shall cover the baseline condition and scenarios with various different options proposed by the Applicant in order to quantify the environmental impacts and improvements that will be brought about by these options. Corresponding pollution load, bathymetry and coastline shall be adopted in the model setup.
- (ii) If applicable, the assessment shall cover accidental spillage associated with the Project. Potential locations, quantities and rates of spill shall be identified and quantified. The spill modelling shall cover combinations of different tides, wind and seasonal conditions. The methodology for modelling spill and scenarios to be covered should be agreed with EPD.
- (iii) The water quality model shall run for a complete year to assess water quality impacts during operation stage of the Project. Water quality impacts during construction stage, and floating refuse and debris entrapment, where appropriate, shall be assessed by simulating at least 30 days (two spring-neap tidal cycles) for both the dry and wet seasons.
- (iv) Compliance of WQOs and other relevant criteria in the relevant WCZs during both the construction and operation stages of the Project shall be assessed.
- (v) Any changes in hydrodynamic regime shall be assessed with the model simulation with the minimum simulation time as follows:

Construction stage:	30 days (two 15-day spring-neap tidal cycles) for both the dry and wet seasons
Post-construction stage:	a complete year
- (i) Daily erosion/sedimentation rate on identified sensitive receivers shall be computed and assessed with relevant criteria.
- (ii) The impacts of water quality and/or hydrodynamic changes on identified sensitive receivers shall be assessed.
- (iii) Cumulative impacts due to other relevant concurrent and planned projects, activities or pollution sources within a boundary to be agreed with the EPD shall also be predicted, quantified and assessed.
- (iv) If nested modelling is adopted (paragraph (iii) of Section 3 of this Appendix) and the

modelling results indicates that certain scenarios are sensitive/critical, e.g. where the predicted water quality only marginally meets the WQOs, the Applicant may be required to verify the findings from the nested model by re-running the identical scenarios using the refined HK-DFM Model (refers to paragraphs (i) and (ii) of Section 3 of this Appendix), if deemed necessary by EPD.

- (v) All modelling input data and results shall be submitted in digital media to EPD upon request.

Appendix E**Requirements for Assessment of Waste Management Implications**

The assessment of waste management implications shall cover the following:

1. Analysis of Activities and Waste Generation

- (i) The Applicant shall identify the quantity, quality and timing of the wastes arising as a result of the construction and operational activities of the Project based on the sequence and duration of these activities, e.g. any dredged/excavated sediment/mud, construction and demolition (C&D) materials, floating refuse, sludge and screenings from sewage treatment works and other wastes which will be generated during construction and operational stages.
- (ii) The Applicant shall adopt appropriate design, general layout, construction methods and programme to minimise the generation of public fill/inert C&D materials and maximise the use of public fill/inert C&D materials for other construction works.

2. Proposal for Waste Management

- (i) Prior to considering the disposal options for various types of wastes, including sewage being screened, opportunities for reducing waste generation, on-site or off-site re-use and recycling shall be evaluated. Measures that can be taken in the planning and design stages (e.g. by modifying the design approach) and in the construction stage for maximising waste reduction shall be separately considered.
- (ii) After considering the opportunities for reducing waste generation and maximising re-use, the types and quantities of the wastes required to be disposed of as a consequence shall be estimated and the disposal methods/options for each type of wastes shall be described in detail. The disposal methods/options recommended for each type of wastes shall take into account the result of the assessment in item (iv) below.
- (iii) The EIA report shall state clearly the transportation routings and the frequency of the trucks/vessels involved, any barging point or conveyor system to be used, the stockpiling areas and the disposal outlets for the wastes identified.
- (iv) The impact caused by handling (including stockpiling, labelling, packaging and storage), collection, transportation and re-use/disposal of wastes shall be addressed in detail and appropriate mitigation measures shall be proposed.
- (v) In addition to the above, the EIA report shall also identify practicable means of avoiding illegal dumping and landfilling, particularly on ecological sensitive areas in the vicinity of the Project.

3. Excavation/Dredging and Dumping

- (i) The Applicant shall identify and estimate dredging/excavation, dredged/excavated sediment/mud transportation and disposal activities and requirements. Potential dumping ground to be involved shall also be identified. Appropriate field investigation, sampling, and chemical and biological laboratory tests to characterise the sediment/mud concerned shall be conducted for marine disposal option. The ranges of parameters to be analysed; the number, type and methods of sampling; sample preservation; chemical and

biological laboratory test methods to be used shall be agreed with the Director (with reference to Section 4.4.2(c) of the TM) prior to the commencement of the tests and document in the EIA report for consideration. The categories of sediment/mud which are to be disposed of in accordance with the Dumping at Sea Ordinance (DASO) shall be identified by both chemical and biological tests and their quantities shall be estimated. If the presence of contamination of sediment/mud which requires special treatment/disposal is confirmed, the Applicant shall identify the appropriate treatment and/or disposal arrangement and demonstrate its viability in consultation with relevant authorities.

- (ii) The Applicant shall identify and evaluate the practical dredging/excavation methods to minimise dredging/excavation and dumping requirements based on the criterion that existing sediment/mud shall be left in place and not to be disturbed as far as possible.

Appendix F**Requirements for Land Contamination Assessment**

1. The Applicant shall identify the potential land contamination site(s) within the boundary of the Project Area (Appendix A refers) and, if any, within the boundaries of associated areas (e.g. work areas) of the Project.
2. The Applicant shall provide a clear and detailed account of the present land use (including description of the activities, chemicals and hazardous substances handled, with clear indication of their storage and location, by reference to a site layout plan) and a complete past land uses history, in chronological order, in relation to possible land contamination (including accident records and change of land use(s) and the like).
3. If any contaminated land uses as stated in sections 3.1 and 3.2 of Annex 19 in the TM is identified, the Applicant shall carry out the land contamination assessment as detailed from sub-section (i) to (iii) below and propose measure to avoid disposal -:
 - (i) The Applicant shall conduct a site appraisal to identify the potential contamination sources that may have impacted the Project site.
 - (ii) If potential land contamination sources are identified within the boundary of the proposed development and works of the Project, the Applicant shall plan and conduct site investigation for contamination assessment and submit a Contamination Assessment Report (CAR) to the Director for endorsement. If land contamination is confirmed, a Remediation Action Plan (RAP) to formulate viable remedial measures with supporting documents, such as agreement by the relevant facilities management authorities, shall be submitted to the Director for endorsement. The Applicant shall remediate the contaminated land or site(s) according to the endorsed RAP, and a Remediation Report (RR) to demonstrate completion of remediation should be prepared and submitted to the Director for endorsement prior to the commencement of any proposed development or works of the Project. The CAR and RAP, if available, shall be documented in the EIA report.
 - (iii) If there are potential contaminated sites which are inaccessible for conducting sampling and analysis during the course of the EIA study, e.g. due to site access problem, the land contamination assessment submissions will be made after the site is resumed or made accessible for the required investigation and assessment. Nevertheless, the Applicant's site appraisal shall include:
 - (a) a review of the available and relevant information;
 - (b) an initial contamination evaluation of these sites and possible remediation methods;
 - (c) a confirmation of whether the contamination problem at these sites would be surmountable;
 - (d) a sampling and analysis proposal which shall aim at determining the nature and the extent of the contamination of these sites; and
 - (e) where appropriate, a schedule of submission of revised or supplementary site appraisal, CAR, RAP and RR as soon as these sites become accessible.

Appendix G**Requirements for Sewage and Sewerage Impact Assessment**

1. The Applicant shall study and assess the impacts of discharging sewage to the existing / planned sewerage systems. The assessment shall include the following:
 - (i) investigate and review to establish whether there is adequate capacity for the sewage arising from the Project in the existing, committed and planned sewerage systems, and sewage treatment works, taking into account the sewage arising from the existing sources, and committed and planned developments within the sewage catchment. The Applicant shall quantitatively address the impacts of the maximum discharge from the development on the sewerage system under different development phases. The appropriate treatment level of interim and ultimate discharge, if required, and alternative sewage treatment and disposal options shall be assessed;
 - (ii) based on the above item (i), if the existing / planned sewerage layout or capacities cannot cope with the maximum discharges, the Applicant shall propose an optimal and cost-effective upgrading works to improve the existing / planned sewerage and sewage treatment facilities or to provide new sewerage and sewage treatment facilities to receive and treat the sewage arising during construction and operation of the Project. Any proposed sewerage system and / or sewage treatment facility should be designed to meet the current government standards and requirements and agreed by DSD and EPD;
 - (iii) employ the latest version of the computer model “InfoWorks” or equivalent computer models to assess impacts of future development under different phases on the existing and planned sewerage networks. A copy of the model shall be submitted to EPD for record purpose;
 - (iv) propose and undertake required measures to mitigate any forecast shortfalls in the sewerage system as a result of the Project under different development phases and demonstrate the proposed measures would be adequate for the maximum discharge from the Project under different development phases. Any proposed sewerage system and / or sewage treatment facility should be designed to meet the current government standards and requirements and agreed by DSD and EPD;
 - (v) identify and quantify the water quality impacts due to the emergency discharge from new sewage treatment plant / pumping station, if any, and sewer bursting discharge, and to propose measures to mitigate these impacts;
 - (vi) identify and propose the appropriate alignment and layouts of the new sewerage to connect to the existing / planned / future sewerage systems, and investigate and assess the technical feasibility of connection (e.g. technical feasibility and details for connection to public sewer and sewage pumping station); and
 - (vii) set out the design, operation and maintenance requirements and undertake or obtain agreement to undertake the construction and maintenance of any proposed sewerage and sewage treatment facilities, such as sewage treatment plant(s) and pumping station(s) (if recommended), including electrical and mechanical components to eliminate the problem of septicity incurred in long rising mains during low flows and to facilitate maintenance. The above shall be agreed by DSD and EPD. (Twin rising mains for each pumping station should be provided to make sure that the proposed sewage rising mains are maintainable without shutting down and discharging untreated sewage into the natural streams/drainage channels directly).

Appendix H**Requirements for Ecological Impact Assessment (Terrestrial and Marine)**

The ecological impact assessment shall include the following:

1. The Applicant shall examine the flora, fauna and other components of the ecological habitats within the assessment area. The aim shall be to protect, maintain or rehabilitate the natural environment. In particular, the Project shall avoid or minimise impacts on recognised sites of conservation importance, conservation areas and other ecological sensitive areas and species of conservation importance. The assessment shall identify and quantify as far as possible the potential ecological impacts arising from the construction and operation of the Project and associated works, both directly by habitat loss and indirectly by potential impacts such as disturbance, change of water quality and hydrodynamic regime to the natural environment and the associated wildlife groups and habitats/species.
2. The assessment shall include the following major tasks:
 - (i) review the findings of relevant studies/surveys and collate the available information regarding the ecological characters of the assessment area;
 - (ii) evaluate the information collected; identify any information gap relating to the assessment of potential ecological impacts to terrestrial and marine environment, and determine the ecological field surveys and investigations that are needed for a comprehensive assessment as required under the following sections;
 - (iii) carry out any necessary ecological field surveys with a duration of 12 months covering both wet and dry seasons, and investigations to verify the information collected, fill in the information gaps as identified under sub-section (ii) above, if any, and to fulfil the objectives of the EIA study. The field surveys shall cover flora, fauna and any other habitats/species of conservation importance, including riparian habitats and species;
 - (iv) establish the ecological profile of the assessment area based on information collected in the tasks mentioned in sub-sections (i) to (iii) above, and describe the characteristics of each habitat found; the data set should be comprehensive and representative, and is up to date and valid for the purpose of this assessment. Major information to be provided shall include:
 - (a) description of the physical environment, including recognised sites of conservation importance, conservation areas and other ecological sensitive areas and assessment of whether these sites/areas will be affected by the Project;
 - (b) habitat maps of suitable scale (1:1000 to 1:5000) showing the types and locations of habitats and species of conservation interest in the assessment area;
 - (c) ecological characteristics of each habitat type such as size, vegetation and/or substrate type, species present, dominant species found, species richness and abundance of major taxa groups, community structure, seasonal patterns, ecological value, inter-dependence of the habitats and species, and presence of any features of ecological importance;
 - (d) representative colour photos of each habitat type and any important ecological features identified; and
 - (e) species found that are rare, endangered and/or listed under local legislation,

international conventions for conservation of wildlife/habitats or Red Lists.

- (v) investigate and describe the existing wildlife uses of various habitats with special attention to those wildlife groups and habitats with conservation interest, including but not limited to the following:
- (a) natural and man-made wetland habitats including fishponds, ponds, marsh, intertidal mudflats, mangroves, seagrass beds and modified/and semi-natural / natural watercourses;
 - (b) roosting, breeding and/or feeding sites of resident and migratory birds in particular waterbirds and wetland-dependent species, e.g. Sha Kiu Village Egret, Shenzhen Bay Bridge Egret, Ngau Hom Shek Egret and Shenzhen Bay Bridge Night Roost;
 - (c) bird flight lines over the project sites and between roosting/breeding and feeding sites of resident and migratory birds e.g. those at (b) above;
 - (d) woodland and shrublands;
 - (e) mammals (both terrestrial and flying e.g. otters);
 - (f) reptiles;
 - (g) amphibians;
 - (h) freshwater fish and invertebrates;
 - (i) estuarine fish community
 - (j) butterflies and odonates;
 - (k) fireflies;
 - (l) birds including migratory waterbirds/shorebirds;
 - (m) horseshoe crabs;
 - (n) flora; and
 - (o) any other habitats/species identified as having special conservation importance by this EIA study.
- (vi) using suitable methodologies (including but not limited to those adopted in other relevant EIA studies in Hong Kong), and considering any works activities from other projects reasonably likely to occur at the time, identify and quantify as far as possible any direct (e.g. loss of habitats), indirect (e.g. changes in water qualities, hydrodynamics properties, hydrology, light, noise, and other disturbance generated by the construction and operational activities, etc.), on-site, off-site, primary, secondary and cumulative ecological impacts on the wildlife groups and habitats identified such as destruction of habitats, potential diversion or modification of watercourses, disturbance to wildlife, reduction of species abundance/diversity, loss of feeding and breeding grounds, reduction of ecological carrying capacity and habitat fragmentation and any other possible disturbance caused by the Project, in particular the following:
- (a) loss of habitats, in particular wetlands (such as fishponds, marsh, watercourses, intertidal mudflats, mangroves, seagrass beds and woodland;

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- (b) impacts on birds due to collision to transparent or semi-transparent or reflective noise barriers and building facades as well as disturbances to flight lines between breeding/roosting and foraging grounds by future buildings/structures;
 - (c) direct loss of and indirect impacts on avifauna (including roosting, breeding and/or feeding sites of resident and migratory birds in particular waterbirds and wetland-dependent species, e.g. Sha Kiu Village Egret, Shenzhen Bay Bridge Egret, Ngau Hom Shek Egret and Shenzhen Bay Bridge Night Roost) during construction and operation phases;
 - (d) disturbance including noise, light, dust, traffic and other human activities to wildlife in particular ecologically sensitive species during construction and operation phases;
 - (e) impacts due to potential changes in water quality, hydrodynamics properties and hydrology on fishponds and watercourses and alternations to riparian habitats, during the construction and operation phases;
 - (f) impacts due to obstruction to wildlife corridor, habitat fragmentation and isolation;
 - (g) impact due to ground-borne noise and vibration as well as groundwater drawdown;
 - (h) direct and indirect impacts on recognized site of conservation importance, conservation areas and other ecologically sensitive areas and the associated wildlife during the construction and operation stages of the Project; and
 - (i) cumulative impacts due to other planned and committed concurrent development projects at or near the Project area.
- (vii) evaluate the ecological impact based on the latest information available during the course of the EIA study, using quantitative approach as far as practicable and covering construction and operation phases of the Project;
 - (viii) recommend possible and practicable mitigation measures (such as alternative design and configuration of the Project, modification/change of construction methods, ecological corridor, buffer zone etc.) to avoid, minimise and/or compensate for the adverse ecological impacts identified during construction and operation of the Project;
 - (ix) evaluate feasibility and effectiveness of the recommended mitigation measures and define the scope, type, location, implementation arrangement, resources requirement, subsequent management and maintenance of such measures;
 - (x) determine and quantify as far as possible of the residual ecological impacts after implementation of the proposed mitigation measures;
 - (xi) evaluate the significance and acceptability of the residual ecological impacts using well-defined criteria in Annex 8 of the TM and determine if off-site mitigation measures are necessary to mitigate the residual impacts and if affirmative, guidelines and requirements laid down in Annex 16 of the TM should be followed; and
 - (xii) review the need for and recommend any ecological monitoring programme required.

Appendix I**Requirements for Fisheries Impact Assessment**

1. Existing information regarding the assessment area shall be reviewed. Based on the review results, the study shall determine the need for fisheries baseline surveys, and conduct field surveys to collect adequate baseline information as necessary.
2. The Applicant shall propose appropriate methodology (in particular sampling gear type and specification, number and location of sampling stations, duration and timing of surveys and data analyses to be performed, etc.)
3. The fisheries impact assessment shall cover any potential direct/indirect, on-site/off-site, short-term and long-term impacts on capture and culture fisheries during construction and operation phases of the Project.
4. The fisheries impact assessment shall provide the following information:-
 - (i) description of the physical environmental background;
 - (ii) description and quantification of the existing fisheries activities;
 - (iii) description and quantification of the existing fisheries resources/production;
 - (iv) identification of parameters (e.g. water quality parameters) and areas that are important to fisheries and will be affected;
 - (v) prediction and evaluation of any direct/indirect and onsite/offsite impacts on fisheries, such as loss or disturbance of fishing grounds, fisheries production and operations, fisheries resources and habitats, fish ponds and oyster culture activities in Deep Bay and water quality deterioration at sensitive receivers;
 - (vi) evaluation of cumulative impacts on fisheries due to other planned and committed concurrent development projects at or near the assessment area;
 - (vii) where necessary, propose feasible, practicable and effective alternatives and/or mitigation measures; and
 - (viii) review for the need of monitoring during the construction and operation phases of the Project and associated works and, if necessary, propose a monitoring and audit programme.

Appendix J**Requirements for Landscape and Visual Impact Assessment**

1. A system shall be derived for judging the landscape and visual impact significance as required under the Annexes 10 and 18 of the TM and the latest version of the EIAO Guidance Note "Preparation of Landscape and Visual Impact Assessment under the EIAO" published on the website of the Environmental Protection Department, unless otherwise agreed by the Director. Landscape impact during construction and post-construction phase, and visual impact due to the Project during post-construction phase within the assessment area shall be assessed. Cumulative landscape impacts of the Project with other existing, committed and planned developments in the assessment area shall be assessed.
2. The Applicant shall describe, appraise, analyse and evaluate the existing and planned landscape resources and characters of the assessment area including those landscape design proposed under the Project. Annotated oblique aerial photographs and plans of suitable scale showing the baseline landscape resources and landscape character areas and mapping of impact assessment shall be used to present the findings of impact assessment. Descriptive text shall provide a concise and reasoned judgment from a landscape point of view. The assessment shall be particularly focused on the sensitivity of the landscape character areas and resources and its ability to accommodate change. The Applicant shall identify the degree of compatibility of the Project with the existing and planned landscape setting and scenic spot. The landscape impact assessment shall qualify and quantify as far as possible potential landscape impact, so as to illustrate the significance of such impact arising from the Project. Broad brush tree/vegetation survey including distinctive landscape resources within the assessment area shall be carried out and the impacts on them shall also be addressed. Cumulative landscape impacts of the Project with other committed and planned developments shall be assessed.
3. The Applicant shall assess the visual impact due to the Project during post-construction stage. Clear illustrations including mapping of visual impact is required. The Visual Impact Assessment should take into account existing/planned/approved land uses as the baseline conditions. All direct impacts on existing/planned/approved land uses, and on future outlook of the area should be discussed. The assessment shall include the following:
 - (i) identification and plotting of visual envelope of the Project;
 - (ii) appraisal of existing visual resources and characters as well as future outlook of the visual system of the assessment area;
 - (iii) identification and justification of the key public viewing points within the visual envelope and their views, and clearly indicate the key public viewing points on a plan of appropriate scale. Prior to the Visual Impact Assessment (VIA), the selection of representative public viewing points shall be agreed with Planning Department and the Director;
 - (iv) evaluation of the magnitude of change in terms of visual composition, visual obstruction and visual change of the Project with the existing and planned visual context, and sensitivity of viewers in terms of types of viewers and value of existing views;
 - (v) the visual impact of the Project with and without mitigation measures during post-construction phase shall be included and illustrated so as to demonstrate the effectiveness of the proposed mitigation measures across time; and
 - (vi) evaluation and explanation with supportive arguments of factors considered in arriving the significance thresholds of visual impact. The visual impacts should include presentation of an evaluation matrix derived for judging impact significance.
4. The Applicant shall evaluate the merits of preservation in totality, in parts or total

destruction of existing landscape and the establishment of a new landscape character area. In addition, alternative location, layout, development options, alignment, design and construction methods that would avoid or reduce the identified impacts on landscape, and/or visual amenity shall be thoroughly examined before adopting other mitigation or compensatory measures to alleviate the impacts. The applicant shall recommend mitigation measures which shall not only focus on damage reduction but also potential enhancement of existing landscape and visual quality of the area. The recommendations shall also be illustrated in landscape design and landscape/visual impact mitigation measure plan.

5. The mitigation measures shall include preservation of vegetation and natural landscape resources (e.g. transplanting of trees in good condition and value), provision of buffer planting, re-vegetation of disturbed area, woodland restoration, compensatory planting, erection of decorative screen hoarding compatible with surrounding setting, provisioning/re-provisioning of amenity areas and open spaces, design and layout of structures, façade treatment, creation of interesting landscape or visual features and any measures to mitigate the impact on existing and planned land uses and viewers. Parties shall be identified for the ongoing management and maintenance of the proposed mitigation works to ensure their effectiveness throughout the implementation of the Project. Agreement from relevant authorities responsible for funding, implementation, management and maintenance of proposed mitigation measures have to be obtained before including into the LVIA. A practical programme for the implementation of the recommended measures shall be provided. If any noise barriers/enclosures are proposed, the choice of their colours, design and materials should be compatible with the surrounding buildings and development context and their aesthetic designs should be considered.
6. Annotated illustration materials such as coloured perspective drawings, plans and section, oblique aerial photographs, photographs taken at key public viewing points, and computer-generated photomontage shall be adopted to fully illustrate the landscape and visual impacts of the Project. In order to illustrate the landscape and visual impacts and to demonstrate the effectiveness of the proposed landscape and visual mitigation measures, photomontages at selected representative public viewing points shall be prepared to illustrate existing conditions and proposed development with and without mitigation measures at the post-construction stage, unless otherwise agreed by the Director. Computer graphics shall be in a common format compatible with desktop computers. The Applicant shall record the technical details in preparing the illustrations, which may need to be submitted for verification of the accuracy of the illustrations.

Appendix K**Requirements for Cultural Heritage Impact Assessment**1. **Cultural Heritage Impact Assessment (CHIA)**

The Applicant shall conduct a cultural heritage impact assessment (CHIA) on items as listed in paragraph 3.4.13.2 in the EIA study brief within the assessment area, to determine whether the Project will result in possible direct and indirect impacts on those items. The Applicant shall propose the scope and methodology of the CHIA for agreement of the Antiquities and Monuments Office (AMO) and the Director prior to the commencement of the assessment. The Applicant shall demonstrate that reasonable efforts have been made to avoid or keep the adverse impacts on the items as listed in paragraph 3.4.13.2 in the EIA study brief to the minimum. The Applicant shall recommend appropriate protective/monitoring/mitigation measures in accordance with the assessment results and agreed by AMO and the Director.

A checklist including the affected items, impacts identified, recommended mitigation measures as well as the implementation agent and period shall also be included in the EIA report.

2. **Archaeological Impact Assessment (AIA) and Marine Archaeological Investigation (MAI)**

- (i) The Applicant shall engage archaeologist(s) to conduct an archaeological impact assessment (AIA) and marine archaeological investigation (MAI), taking the results of previous studies and other background of the site into account, to evaluate the terrestrial and marine archaeological impact imposed by the Project and its associated works. The scope of the AIA and MAI shall be submitted to the AMO and the Director prior to the commencement of the assessment for consideration.
- (ii) In case the existing information is inadequate or where the assessment area has not been adequately studied before, the archaeologist and marine archaeologist shall conduct terrestrial and marine archaeological investigations to assemble data. The archaeologist and marine archaeologist shall obtain licences from the Antiquities Authority under the Antiquities and Monuments Ordinance (Cap. 53) prior to the commencement of archaeological investigations. The licence applicant(s) shall propose respective programmes of investigations, including the scope of works, methodology and time schedules, etc. for agreement with the Director and AMO.
- (iii) Based on existing and collected data, the Applicant shall evaluate whether the proposed developments and works associated with the Project are acceptable from terrestrial and marine archaeological preservation point of view. In case adverse impact on archaeological heritage cannot be avoided, appropriate mitigation measures should be designed and recommended in the EIA report in agreement and consideration with AMO, and implemented to the satisfaction of AMO.
- (iv) If terrestrial and marine archaeological investigations are required, it shall follow detailed technical requirements to be given by AMO and the Director on terrestrial and marine archaeological investigations, archaeological report and handling of archaeological finds and archives. The assessment area shall include all land-based and marine-based areas to be affected by the Project.

Appendix L**Requirements for Hazard to Life Assessment****Hazardous Facilities**

1. The Applicant shall investigate methods to avoid and/or minimize risks from dangerous goods (DG) due to the existing and/or planned hazardous facilities. The Applicant shall review and seek the Director's agreement whether a quantitative hazard assessment is required to evaluate potential hazard to life due to the hazardous facilities (if any) during construction and operation stages of the Project. In the event of a hazard assessment for the hazardous facilities is required for the Project, the hazard assessment shall include the following:
 - (i) Identify hazardous scenarios associated with the manufacture, on-site transport, storage and use of dangerous goods in the hazardous facilities and then determine a set of relevant scenarios to be included in a Quantitative Risk Assessment (QRA);
 - (ii) Execute a QRA of the set of hazardous scenarios determined in 1 (i) above, expressing population risks in both individual and societal terms;
 - (iii) Compare individual and societal risks with the criteria for evaluating hazard to life stipulated in Annex 4 of the TM; and
 - (iv) Identify and assess practicable and cost-effective risk mitigation measures to demonstrate the compliance with the Risk Guidelines.

Appendix M

Implementation Schedule of Recommended Mitigation Measures

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Measures & Main Concerns to Address	Who to Implement the Measure?	Location of the Measure	When to Implement the Measure?	What Standards or Requirements for the Measure to Achieve?

Appendix N**Requirements for EIA Report Documents**

1. The Applicant shall supply the Director with the following number of copies of the EIA report and the executive summary:
 - (i) 30 copies of the EIA report and 30 copies of the executive summary (each bilingual in both English and Chinese) as required under Section 6(2) of the EIAO to be supplied at the time of application for approval of the EIA report.
 - (ii) When necessary, addendum to the EIA report and the executive summary submitted in item (i) above as required under Section 7(1) of the EIAO, to be supplied upon advice by the Director for public inspection.
 - (iii) 20 copies of the EIA report and 20 copies of the executive summary (each bilingual in both English and Chinese) with or without Addendum as required under Section 7(5) of the EIAO, to be supplied upon advice by the Director for consultation with the Advisory Council on the Environment.
2. In addition, to facilitate public inspection of EIA report via EIAO Internet Website, the Applicant shall provide electronic copies of both the EIA report and executive summary prepared in Hyper Text Markup Language (HTML) and in Portable Document Format (PDF), unless otherwise agreed by the Director. For both of the HTML and PDF versions, a content page capable of providing hyperlink to each section and sub-section of the EIA report and executive summary shall be included in the beginning of the document. Hyperlinks to figures, drawings and tables in the EIA report and executive summary shall be provided in the main text from where respective references are made. The EIA report, including drawings, tables, figures and appendices shall be viewable by common web-browsers including the latest version of Microsoft Edge, Mozilla Firefox, Safari, Google Chrome or any web browsers as agreed by the Director, and support languages including Traditional Chinese, Simplified Chinese and English.
3. The electronic copies of the EIA report and the executive summary shall be submitted to the Director at the time of application for approval of the EIA report.
4. When the EIA report and the executive summary are made available for public inspection under Section 7(1) of the EIAO, the content of the electronic copies of the EIA report and the executive summary must be the same as the hard copies and the Director shall be provided with the most updated electronic copies.
5. To promote environmentally friendly and efficient dissemination of information, both hardcopies and electronic copies of future EM&A reports recommended by the EIA study shall be required and their format shall be agreed by the Director.