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29 June 2018

Aberdeen Boat Club Limited

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

Project Title: Aberdeen Boat Club, Middle Island Development, Phase III, IV & V
(Application No. ESB – 308/2018)

I refer to your application received on 28.5.2018 for an Environmental Impact Assessment (EIA) Study Brief for the above project under Section 5(1)(a) of the EIA Ordinance.

In accordance with Section 5(7) (a) of the Ordinance and after public inspection of the project profile, I issue the attached EIA Study Brief No. ESB-308/2018 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 Ordinance after its completion. Upon receipt of your application, this department will decide under Section 6(3) of the 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 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 sufficient copies of the Executive Summary of the EIA report to the Secretary of the EIA Subcommittee of ACE for selection for submission when you submit the EIA report to this department for approval. Please liaise with Ms. Dora CHU (Tel: 2594 6324) of the ACE Secretariat regarding the details in due course.

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 before and during the course of the EIA study. Please find attached a copy of the "modus Operandi of the EIA Subcommittee of the ACE" 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.

Besides, you are also reminded to observe and satisfy the relevant statutory and regulatory requirements before and /or during the preliminary planning and design stage of the Aberdeen Boat Club project, such as the requirements under Cap.127 Foreshore and Sea-bed (Reclamation) Ordinance, Cap.131 Town Planning Ordinance, and Cap.313 Shipping and Port Control Ordinance, etc. For seeking clarification on the respective statutory and regulatory requirements in relation to the Aberdeen Boat Club project, you should consider liaising closely with the following departments accordingly:

(i.) District Lands Office, Hong Kong West & South, Lands Department
(ii.) Metro Planning Division, Planning Department
(iii.) Planning & Services Division, Marine Department
(iv.) Port Works Division, Civil Engineering and Development Department

Should you have any queries concerning the above, please contact Mr. Richard WONG of this Department at 2835 1128.

Yours sincerely,

(Tony W.H. CHEUNG)
Principal Environmental Protection Officer
for Director of Environmental Protection

ENVIRONMENTAL IMPACT ASSESSMENT ORDINANCE (CAP. 499)
SECTION 5 (7)

ENVIRONMENTAL IMPACT ASSESSMENT STUDY BRIEF NO. ESB-308/2018

PROJRCT TITLE: ABERDEEN BOAT CLUB
MIDDLE ISLAND DEVELOPMENT, PHASE III, IV AND V
(hereinafter known as the "Project")

NAME OF APPLICANT: ABERDEEN BOAT CLUB
(hereinafter known as the "Applicant")

1. BACKGROUND

1.1 An application (No. ESB-308/2018) for an Environmental Impact Assessment (EIA) study brief under section 5(1)(a) of the Environmental Impact Assessment Ordinance (EIAO) was submitted by the Applicant on 28.05.2018 with a project profile (No. PP-568/2018) (the Project Profile).

1.2 According to the applicant, the Project is intended to further develop the existing Aberdeen Boat Club's Middle Island facilities to serve the increasing demand for the club's facilities and storage for boating and boat racing activities, for training for both members and members of the public in sailing, racing and motor boating, and for administration and canteen use. In particular, the Project comprises:

(i) reclamation of about 5,310m^2;
(ii) a floating type pontoon berthing area to accommodate moorings for 29 vessels and hardstand for dry storage of about 170 vessels; and
(iii) a two-storey clubhouse and training centre.

The location plan of the Project is shown in **Figure 1** of this study brief.

1.3 The Project consists of the following designated project items under Part I, Schedule 2 of the EIAO:

(i) Item O.2: A marina designed to provide mooring or dry storage for not less than 30 vessels used primarily for pleasure or recreation;
(ii) Item C.12 (a)(vii): A dredging operation which is less than 500m from the nearest boundary of an existing or planned coastal protection area if dredging is found to be required subject to the result of marine ground investigations.

1.4 Pursuant to section 5(7)(a) of the EIAO, the Director of Environmental Protection (the Director) issues this Environmental Impact Assessment (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 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 and associated works;

(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 associated works 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;

(iv) to identify and quantify contaminated land within any project area for development works, and to propose measures to avoid disposal in the first instance;

(v) to identify and quantify any potential losses or damage to flora, fauna and natural habitats;

(vi) to propose the provision of mitigation measures so as to prevent or minimize pollution, environmental disturbance and nuisance during construction and operation of the Project;

(vii) to investigate the feasibility, practicability, effectiveness and implications of

the proposed mitigation measures;

(viii) to identify, predict and evaluate the residual environmental impacts (i.e. after practicable mitigation) 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.

(ix) 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;

(x) to design and specify the environmental monitoring and audit requirements; and

(xi) to identify any additional studies necessary to implement the mitigation measures or monitoring and proposal recommended in the EIA report.

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 fulfill, 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 EIAO (hereinafter referred to as the "TM") are complied with.

3.2 The Scope

3.2.1 The scope of this EIA study shall cover the Project and associated works mentioned in section 1.2 above. 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) Environmental benefits and dis-benefits of different development options, siting, and design, including the schemes with and without reclamation, reclamation configuration, and construction methods of the Project with a view to deriving the preferred option(s) that will avoid and/ or minimise adverse environmental impacts, including but not limited to the avoidance approach to

preserve / protect the coral communities and natural shorelines within the project boundary. A comparison of the different development options, and the reasons for selecting the preferred option(s) and the part that environmental factors played in the selection of preferred option(s) shall be provided;

(ii) Potential air quality impacts on sensitive receivers (ASRs) due to the construction and operation of the Project, associated works and marine activities;

(iii) Potential noise impacts on noise sensitive receivers (NSRs) due to the construction and operation of the Project and associated works including noise impact from marine traffic;

(iv) Potential hydrodynamic and water quality impact caused by the Project and associated works such as dredging, fill extraction, reclamation, back filling, sewerage provisions, drainage diversion, etc. arising from the Project;

(v) Potential waste management implications arising from the construction and operation of the Project;

(vi) Potential extent of land contamination within the project area for development works and relevant mitigation measures;

(vii) Potential ecological impact due to the construction and operation of the Project and associated works, including impacts arising from the dredging and reclamation work of the Project and impacts on ecological sensitive areas and species such as existing Coastal Protection Area (CPA) and coral communities;

(viii) Potential fisheries impacts due to construction and operation of the Project and associated works, including impacts on fishing grounds, fisheries habitats, spawning and nursery grounds, aquaculture sites and artificial reefs;

(ix) Potential landscape & visual impacts effect due to the construction and operation of the Project;

(x) Potential cultural heritage, include built heritage and marine archaeological impact due to the Project; and

(xi) Potential cumulative environmental impacts of the Project, through interaction or in combination with other existing, committed and planned projects in the vicinity of the Project, and that those impacts may have a bearing on the environmental acceptability of the Project.

3.3 Description of the Project

3.3.1 Purpose(s) and Objectives of the Project

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

3.3.2 Details of the Project

The Applicant shall indicate the nature and status of the project decision(s) for which the EIA study is undertaken. The Applicant shall describe the design, size, construction methods, or other major activities involved in the construction and operation of the Project, using diagrams, plans and/or maps as necessary. The estimated duration of the construction phase and operation phase of the Project together with the programme within these phases shall be given. The land taken by the Project, construction sites and landscaping areas shall be shown on a scaled map. The 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 site location and site history of the Project, any related projects and consideration of different development options, taking into account the principles of avoidance, minimizing and control of adverse environmental impacts. The options might include siting, size, and design, including the development schemes with and without reclamation, reclamation configuration, construction methods, sequence of construction works and access arrangement for the Project with a view to deriving the preferred option(s) that will avoid and /or minimise adverse environmental impacts. The key reasons for selecting the preferred option(s) and the part that environmental factors played in the selection shall be described. A comparison of the environmental benefits and dis-benefits of applying different development options shall be made.

3.4 Technical Requirements

3.4.1 The Applicant shall conduct the EIA study to address the environmental aspects of the Project as described in section 3.2 above. The assessment shall be based on the best and latest information available during the course of the EIA study. The EIA report shall include the construction and operational programme and methodologies for assessing environmental impacts of the Project. The EIA report shall provide the time frame and works programmes of the Project and other concurrent projects, and for assessing the cumulative environmental impacts from the Project and the interacting projects as identified in the EIA study.

3.4.2 The EIA study shall follow the technical requirements specified below and in the

Appendices of this EIA study brief.

3.4.3 Air Quality Impact

3.4.3.1 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.

3.4.3.2 The assessment area for air quality impact assessment shall be defined by a distance of 500 meters from the boundary of the Project site or other project locations as identified in the EIA, which shall be extended to include major existing, planned and committed air pollutant emission sources that may have a bearing on the environmental acceptability of the Project. The assessment shall include the existing, planned and committed sensitive receivers within the study area as well as areas where air quality may be potentially affected by the Project. The assessment shall also take into account the impacts of emission sources from nearby concurrent projects, if any.

3.4.3.3 The air quality impact assessment shall follow the detailed technical requirements given in **Appendix A**.

3.4.4 Noise Impact

3.4.4.1 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.

3.4.4.2 The Applicant shall propose the assessment area for agreement of the Director before commencing the assessment. The assessment area for the noise impact assessment shall generally include areas within 300 metres from the boundary of the Project and the works of the Project. The assessment area can be reduced accordingly if the first layer of NSRs closer than 300 metres from the outer Project limit provide shielding to those receivers at distances further away from the Project. The assessment area shall be expanded to include NSRs at a distance over 300 metres from the Project, associated works and associated marine traffic if those NSRs are also affected by the construction and operation of the Project. If NSRs are identified within the assessment area, quantitative noise impact assessment shall be carried out.

3.4.4.3 The noise impact assessment shall follow the detailed technical requirements given in **Appendix B**.

3.4.5 Water Quality Impact

3.4.5.1 The Applicant shall follow the criteria and guidelines for evaluating and assessing water quality impact as stated in Annexes 6 and 14 of the TM respectively.

3.4.5.2 The study area for the water quality impact assessment shall include areas within 500 metres from the boundary of the Project site and shall cover the Western Buffer Water Control Zone and Southern Water Control Zone as designated under Water Pollution Control Ordinance (Cap 358) and water sensitive receivers in the vicinity of the Project, such as streams and ponds located within or close to the Project; Aberdeen South Typhoon Shelter; gazetted beaches; Ocean Park seawater intake; and corals around the Middle Island. The study area can be extended to include other areas such as stream course, existing and new drainage system, and the associated water system(s) in the vicinity if they are found also being impacted by the Project during the course of the EIA study and have a bearing on the environmental acceptability of the Project.

3.4.5.3 The water quality impact assessment for construction and operation of the Project shall follow the detailed technical requirements given in **Appendix C**.

3.4.6 Sewerage and Sewage Treatment Implications

3.4.6.1 The Applicant shall follow the criteria and guidelines for evaluating and assessing impacts on the downstream public sewerage, sewage treatment and disposal facilities as stated in section 6.5 in Annex 14 of the TM.

3.4.6.2 The assessment of the sewerage and sewage treatment implications for the Project shall follow the detailed technical requirements given in **Appendix D**.

3.4.7 Waste Management Implication and Land Contamination Assessment

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

3.4.7.2 The assessment of the waste management implication arising from construction and operation of the Project shall follow the detailed technical requirements given in **Appendix E-1**.

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

3.4.7.4 The assessment of the potential land contamination issues shall follow the detailed technical requirements given in **Appendix E-2**.

3.4.8 Marine Ecological Impact

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

3.4.8.2 The assessment area shall be the same as the water quality impact assessment described in section 3.4.5.2 above. The assessment shall include ecological sensitive receivers in the vicinity of the Project such as coral communities.

3.4.8.3 The ecological impact assessment for construction and operation of the Project shall follow the detailed technical requirements given in **Appendix F**.

3.4.9 Fisheries Impact

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

3.4.9.2 The assessment area shall be the same as the water quality impact assessment as stipulated in Section 3.4.5.2. The assessment area shall be extended to include other areas if they are also found likely to be impacted by the construction or operation of the Project 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 fishing ground, fisheries habitat, spawning or nursery grounds, water quality deterioration at sensitive receivers such as fish culture zones and artificial reefs.

3.4.9.3 The fisheries impact assessment for construction and operation of the Project shall follow the detailed technical requirements given in **Appendix G**.

3.4.10 Landscape and Visual Impact

3.4.10.1 The Applicant shall follow the criteria and guidelines for evaluating and assessing the landscape and visual impacts as stated in Annexes 10 and 18 of the TM respectively, and the EIAO Guidance Note No.8/2010 on "Preparation of Landscape and Visual Impact Assessment under the Environmental Impact Assessment Ordinance"

3.4.10.2 The assessment area for landscape impact assessment shall include areas within 500 meters distance from the boundary of the Project sites. The study area for the visual impact assessment shall be defined by the visual envelop of the Project.

3.4.10.3 The landscape and visual impact assessments for construction and operation of the Project shall follow the detailed technical requirements given in **Appendix H**.

3.4.11 Impact on Cultural Heritage

3.4.11.1 The applicant shall follow the criteria and guideline for evaluating and assessing the cultural heritage impacts as stated in Annexes 10 and 19 of the TM respectively.

3.4.11.2 A marine archaeological investigation (MAI) shall be conducted. It shall include area to be affected by the marine and dredging works of the Project. The MAI shall follow the detailed technical requirements given in **Appendix I**.

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 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 J** of this EIA study brief) containing the EIA study recommendations and mitigation measures with reference to the implementation programme of the Project.

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, Limitations 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 all 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 Options and Mitigation Measures

The EIA report shall contain a summary of alternative development options and mitigation measures considered during the course of the EIA study, including but not limited to the alternative siting, size, and design, including the schemes without and without reclamation, reclamation configuration, construction methods and sequence of construction works with a view to avoiding or minimizing adverse environmental impacts. A comparison of the environmental benefits and dis-benefits of applying different development options, and/or mitigation measures shall be made.

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, district council(s), the relevant statutory or advisory bodies received and/ or gathered by the Applicant including those received during any possible public engagement process, and the main concerns of other stakeholders that the Applicant may engage before and/or 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 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 K 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.

6. OTHER PROCEDURAL REQUIREMENTS

6.1 If there is any change in the name of Applicant for this EIA study brief during the course of the 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 section 1.2 of this EIA study brief and in Project Profile (No. PP-568/2018), 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

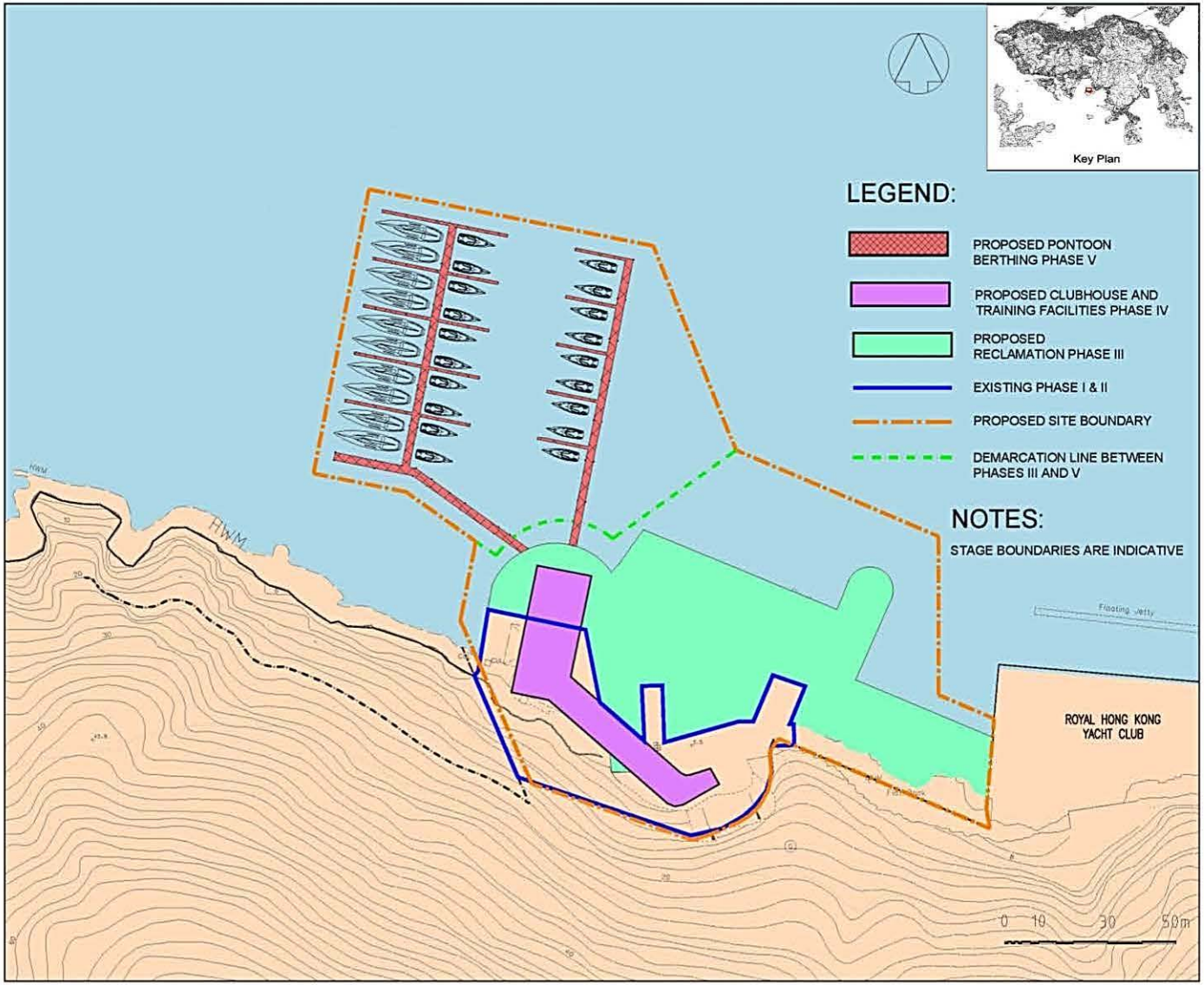
7.1 This EIA Study Brief includes the following figure and appendices:

Figure 1 – Location Plan of the Project
Appendix A – Requirements for Air Quality Impact Assessment
Appendix A1 – Air Quality Modelling Guidelines
Appendix B – Requirements for Noise Impact Assessment
Appendix C – Requirements for Water Quality Impact Assessment
Appendix C-1– Hydrodynamic and Water Quality Modelling Requirements
Appendix D – Requirements for Assessment of Sewerage and Sewage Treatment Implications
Appendix E-1 – Requirements for Assessment of Waste Management Implications
Appendix E-2 – Requirements for Land Contamination Assessment
Appendix F – Requirements for Ecological Impact Assessment
Appendix G – Requirements for Fisheries Impact Assessment
Appendix H – Requirements for Landscape and Visual Impact Assessment
Appendix I – Requirements for Cultural Heritage Impact Assessment (Marine Archaeological Investigation)
Appendix I-1 – Guidelines for Marine Archaeological Investigation (MAI)
Appendix J – Implementation Schedule
Appendix K – Requirements for EIA Report Documents

--- END OF EIA STUDY BRIEF ---

June 2018
Environmental Assessment Division
Environmental Protection Department

Figure 1



Location Plan of the Aberdeen Boat Club Middle Island Development, Phase III, IV and V
工程項目名稱：香港仔遊艇會鴨脷洲發展項目第 III、IV&V 期

(This figure is prepared based on Figure 1-2 of Project Profile No.: PP-568/2018)
(本圖是根據工程項目簡介編號: PP-568/2018 圖則編號 1-2 編制)

EIA Study Brief No. :
環評研究概要編號 : ESB-308/2018

Figure 1: Location Plan of the Project
圖一：工程項目位置圖

Appendix A

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) Given an account, where appropriate, of the consideration/measures that has been taken into consideration in the planning of the Project to abate the air pollution impact.

(iii) Presentation of background air quality levels in the study area for the purpose of evaluating cumulative air quality impacts of the Project. If PATH (Pollutants in the Atmosphere and their Transport over Hong Kong) model is used to estimate the background air quality, details for the estimation of the emission sources to be adopted in the model runs should be clearly presented.

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

(i) Identification and description of existing, planned and committed ASRs that would likely be affected by the Project, including those earmarked on the relevant Outline Zoning Plans, Development Permission Area Plans, Outline Development Plans and Layout Plans and 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. 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 shall be given. The separation distances of these ASRs from the nearest emission sources shall also be given.

(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 activities during the construction and operation stage of the Project in section 1 above. Examples of construction stage emission sources include land formation, excavation works, etc. Examples of operation stage emission sources include exhaust emissions from motor vessels, and odour emissions from underground external sewage pumping facilities, etc. Confirmation regarding the validity of the assumptions adopted and the magnitude of the activities shall be obtained from the relevant government departments / authorities and documented.

(iii) 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 dust impacts are controlled within the relevant standards as stipulated in Section 1 of Annex 4 of the TM.

(ii) If the Applicant anticipates that the Project will give rise to significant construction dust impacts likely to exceed recommended limits in the TM at the ASRs despite the incorporation of the dust control measures proposed, a quantitative assessment shall be carried out to evaluate the construction dust impact at the identified ASRs. The Applicant shall follow the methodology set out in section 5 below when carrying out the quantitative assessment.

(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 fugitive dust emission.

4. Operation Phase Air Quality Impact

(i) The Applicant shall assess the expected air pollutant impacts at the identified ASRs based on an assumed reasonably worst-case scenario under normal operating conditions of the Project. If the assessment indicates likely exceedances of the recommended limits in the TM at the development and the nearby ASRs, a quantitative assessment shall be carried out to evaluate the operation 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.

(ii) A monitoring and audit programme for the operation phase of the Project shall be devised to verify the effectiveness of the control measures proposed so as to ensure proper control of operation air quality impacts.

5. Quantitative Assessment Methodology

If quantitative assessment is required, the Applicant should follow the relevant methodology set out below when carrying out the assessment:

(i) The Applicant shall conduct the quantitative assessment by applying the general principles enunciated in the modelling guidelines in Appendices A-1 while making allowance for the specific characteristic of the Project. In case of doubt, prior agreement between the Applicant and the Director on specific modelling details shall be sought.

(ii) The Applicant shall identify the key/representative air pollution parameters (types of pollutants and averaging time concentrations) to be evaluated and provide explanation for selecting such parameters for assessing the impact of the Project and associated works.

(iii) Calculation of the relevant pollutant emission rates for input to the model and a map showing the emission sources shall be presented in the EIA report. A summary table of the emission rates 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) The Applicant shall calculate the overall cumulative air quality impact at the ASRs identified under section 2 above and compare these results against the criteria set out in Section 1 of Annex 4 in the TM. The predicted air quality impacts (both unmitigated and mitigated) shall be presented in the form of summary table(s) and pollution

contours, 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 should be used to present pollution contours to allow buffer distance requirements to be determined properly.

6. Mitigation Measures for Air Quality Impact

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. 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 maximize the protection of the ASRs as far as possible should be clearly substantiated and documented in the EIA report.

7. Evaluation of Residual Air Quality Impact

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.

8. Submission of Model Files

Input and output file(s) of model run(s) including those files for generating the pollution contours and emission calculation work sheets shall be submitted to the Director in electronic format together with the submission of the EIA report.

Appendix A-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 include the following guidelines as published on the website of the Environmental Protection Department (http://www.epd.gov.hk/epd/english/environmentinhk/air/guide_ref/guide_aqa_model.html):

i) Guidelines on Choice of Models and Model Parameters;

ii) Guidelines on Assessing the 'Total" Air Quality Impact (Revised);

iii) Guidelines on the Use of Alternative Computer Models in Air Quality Assessment (Revised);

iv) Guidelines on the Estimation of PM2.5 for Air Quality Assessment in Hong Kong; and

v) Guidelines on the Estimation of 10-minute Average SO2 Concentration for Air Quality Assessment in Hong Kong.

Appendix B

Requirements for Noise Impact Assessment

The noise impact assessment shall include the following:

1 Provision of Background Information and Existing Noise Levels

1.1 The Applicant shall provide background information relevant to the Project. Unless required for determining the planning standards, no existing noise levels are particularly required.

2 Identification of Noise Sensitive Receivers

2.1 The Applicant shall refer to Annex 13 of the TM when identifying the NSRs. The NSRs shall include existing NSRs and planned/committed noise sensitive developments and uses earmarked 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. Photographs of existing NSRs shall be appended to the EIA report

2.2 The Applicant shall select assessment points to represent identified NSRs for carrying out quantitative noise assessment described below. The assessment points shall be agreed by the Director prior to the quantitative noise assessment and may be varied subject to the best and latest information available during the course of the EIA study. 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. 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 operational noise assessment purpose. However, such assumptions together with any constraints identified, such as setback of building, building orientation, extended podium, shall be agreed by the relevant responsible parties including the Planning Department and the Lands Department in accordance with section 6.3 of Annex 13 of the TM.

3 Provision of an Emission Inventory of the Noise Sources

3.1 The Applicant shall provide an inventory of noise sources during construction and operation, including but not limited to representative construction noise equipment, fixed plant equipment, operation activities on the moored vessels, maneuvering of vessels and marine traffic flow within assessment area.

4 Construction Noise Impact Assessment

4.1 Construction Noise Impact Assessment Methodology

4.1.1 The Applicant shall carry out construction noise impact assessment (excluding percussive piling) of the Project during daytime, i.e. 7am to 7pm, on any days other than Sundays or general holidays in accordance with methodology in paragraphs 5.3 and 5.4 of Annex 13 of the TM.

4.2 Prediction and Evaluation of Construction Noise Impact

4.2.1 Phases of Construction

The Applicant shall identify representative phases of construction that would have noticeable varying construction noise emissions at existing NSRs at the assessment area for agreement of the Director before commencing the construction noise impact assessment.

4.2.2 Scenarios

The Applicant shall quantitatively assess the construction noise impact, with respect to criteria set in Annex 5 of the TM, of unmitigated scenario and mitigated scenario at different phases of construction of the Project.

4.2.3 Prediction of Noise Impact

(a) The Applicant shall present the predicted noise levels in Leq (30 min) dB(A) at the selected assessment points on tables and plans of suitable scale.

(b) The assessment shall cover the cumulative construction noise impact resulting from the construction works of the Project and other concurrent projects identified during the course of the EIA study on existing NSRs within the assessment area.

(c) The Applicant shall, as far as practicable, formulate a reasonable construction programme so that no work will be required in restricted hours as defined under the Noise Control Ordinance (NCO). In case the Applicant needs to evaluate whether construction works in restricted hours as defined under the NCO are feasible or not in the context of programming construction works, reference should be made to relevant technical memoranda issued under the NCO. Regardless of the results of construction noise impact assessment for restricted hours, the Noise Control Authority will process Construction Noise Permit (CNP) application, if necessary, based on the NCO, the relevant technical memoranda issued under the NCO, and the contemporary conditions/situations. This aspect should be explicitly stated in the noise chapter and the conclusions and recommendations chapter in EIA report.

4.3 Mitigation of Construction Noise Impact

4.3.1 Direct Mitigation Measures

Where the predicted construction noise impact exceeds the criteria set in Table 1B of Annex 5, TM, the Applicant shall consider and evaluate direct mitigation measures including but not limited to, movable barriers, enclosures, quieter alternative methods, re-scheduling, restricting hours of operation of noisy tasks, 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.

4.4 Evaluation of Residual Construction Noise Impact

Upon exhaust of direct 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 construction noise impact in accordance with section 4.4.3 of the TM that will be exposed to residual noise impact exceeding the criteria set in Annex 5 in the TM.

5 Marine Traffic Noise Impact Assessment

5.1 Marine Traffic Noise Impact Assessment Methodology

5.1.1 The Applicant shall propose methodology and computation model which shall be agreed with the Director, with reference to Section 4.4.2 of the TM, prior to the commencement of the assessment.

5.2 Prediction and Evaluation of Marine Traffic Noise Impact

5.2.1 Scenarios

The Applicant shall assess the marine traffic noise impact, with respect to proposed criteria which the applicant shall submit for agreement with the Director (with reference to section 4.4.2(c) 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 of identified noise sources; and/ or
(ii) any other operation modes as confirmed with the Director.

5.2.2 Prediction of Noise Impact

(a) The Applicant shall present the predicted noise levels 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 marine traffic noise impact associated with the operation of the proposed project on existing, committed and planned NSRs within the assessment area.

(c) The potential marine traffic noise impact under different scenarios shall be quantified by estimating the total number of dwellings, classrooms and other noise sensitive receivers that will be exposed to noise impact exceeding the adopted criteria.

5.3 Mitigation of Marine Traffic Noise Impact

5.3.1 Direct Mitigation Measures

Where the predicted marine traffic noise impact exceeds the proposed criteria, the Applicant shall consider and evaluate direct mitigation measures. 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 proposed criteria should be clearly substantiated and documented in the EIA report.

5.4 Evaluation of Residual Marine Traffic Noise Impact

Upon exhaust of direct mitigation measures, if the mitigated noise impact still exceeds the adopted criteria, the Applicant shall identify, predict, evaluate the residual marine traffic 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 adopted criteria.

6 Fixed Noise Sources Impact Assessment

6.1 Fixed Noise Sources Impact Assessment Methodology

The Applicant shall carry out fixed noise sources impact assessment from the Project in accordance with methodology in paragraph 5.2 of Annex 13 of the TM.

6.2 Prediction and Evaluation of Fixed Noise Sources Impact

6.2.1 Scenarios

(a) The Applicant shall quantitatively assess the fixed noise sources impact with respect to 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 of identified noise sources of the Project; and/ or

(ii) any other operation modes as confirmed with the Director.

6.2.2 Prediction of Noise Impact

(a) The Applicant shall present the predicted noise levels in Leq (30 min) 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 fixed noise sources impact associated with the operation of the proposed project on existing, committed and planned NSRs within the assessment area.

(c) The potential fixed noise sources impact under different scenarios shall be quantified by estimating the total number of dwellings, classrooms and other noise sensitive receivers that will be exposed to noise impact exceeding the criteria set in Annex 5 in the TM.

6.3 Mitigation of Fixed Noise Sources Impact

6.3.1 Direct Mitigation Measures

Where the predicted fixed noise sources impact exceeds the criteria set in Table 1A of 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.

6.4 Evaluation of Residual Fixed Noise Sources 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, evaluate the residual fixed noise sources 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 in the TM.

Appendix C

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 C-1. Possible impacts due to the dredging, fill extraction, backfilling, transportation and disposal of dredged materials, other marine works activities, effluent discharge and site runoff shall include changes in hydrology, flow regime, sediment erosion and deposition patterns, morphological change of seabed profile, shoreline change, water and sediment quality. The prediction shall include possible different construction stages or sequences of the Project. Affected sensitive receivers shall be identified by the assessment tool with indications of degree of severity.

3. The assessment shall include, but not limited to the following:

   (i) the water quality impacts of the site run-off generated during the construction stage such as the effluents generated from dewatering associated with piling activities, grouting and concrete washing and those specified in the ProPECC Practice Note 1/94;

   (ii) the water quality impacts of the road runoff containing oil/grease and suspended solids during the operation stage;

   (iii) the water quality impacts on beaches and secondary contact recreation subzones, corals, seawater intake points, river courses, drainages and other water sensitive receivers around the work sites; and

   (iv) the water quality impact arising from marine dredging works and sand filling activities during construction stage; and vessels berthing, motorboat driving and maintenance, and sewage during operation stage.

4. The Applicant shall address water quality impacts due to the construction phase and operation 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) characterize water quality of the water systems and sensitive receivers, which might be affected by the Project based on existing best available information or through appropriate site survey and tests;

   (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 landuse plans;

(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 (i), (ii) & (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 alternation of any water courses, natural streams, ponds, 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 study area;

(vii) identify and quantify existing and likely future water pollution sources, including point discharges and non-point sources to surface water runoff, sewage from workforce and polluted discharge generated from the Project, contaminant release from works on marine sediment and sediment release or re-suspension from works into water bodies;

(viii) provide an emission inventory on the quantities and characteristics of those existing and future pollution sources in the study area. Field investigation and laboratory test, shall be conducted as appropriate to fill relevant information gaps;

(ix) assess 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 3.4.6. The water quality impacts should be assessed if any upgrading or expansion of the existing system is found necessary;

(x) identify and quantify the water quality impacts based on the findings and recommendations from the Sewerage and Sewage Treatment Implications Assessment under section 3.4.6. 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 their sensitive receivers due to the alterations, changes and the pollution sources identified above. Possible impacts include change in hydrology, flow regime, water quality and release of contaminants during dredging, reclamation and other marine works, etc. The prediction shall take into account and include possible different construction and operation stages of the Project;

(xii) assess the cumulative impacts due to other related concurrent and planned projects, activities or pollution sources within the study area that may have a bearing on the environmental acceptability of the Project;

(xiii) analyze the provision and adequacy of existing and planned future facilities to reduce pollution arising from the point and non-point sources identified in (vii) above;

(xiv) develop effective infrastructure upgrading or provision, contingency plan, water pollution prevention and mitigation measures to be implemented during construction and operation stages, including emergency sewage discharge, so as to reduce the water quality impacts to within standards. Requirements to be incorporated in the Project contract document shall also be proposed;

(xv) investigate, develop and design best management practices and propose proper maintenance procedures to reduce storm water/surface runoff and non-point source pollution as appropriate; and

(xvi) 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.

5. The Applicant shall address and assess water quality impacts arising from the following concerns:

Waste Water and Non-point Sources Pollution

(i) Proposal for upgrading or providing any effective infrastructure, water pollution prevention and mitigation measures to be implemented during the construction and operation stages so as to handle any wastewater generated and to reduce the water and sediment quality impacts to within standards. Requirements to be incorporated in the Project contract document shall also be proposed.

(ii) Investigation of and proposal for, as appropriate, best management practices to reduce storm water and non-point source pollution; and

(iii) Evaluation and quantification of residual impacts on the water system(s) and the sensitive receivers with regards to 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.

Appendix C-1

Hydrodynamic and Water Quality Modelling Requirements

Modelling Software General

1. The modelling software shall be fully 3-dimensional capable of accurately simulating the stratified condition, salinity transport, and effects of wind and tide on the water body within the model area.

2. The modelling software shall consist of hydrodynamic, water quality, sediment transport, thermal and particle dispersion modules. All modules shall have been proven with successful applications locally and overseas.

3. The hydrodynamic, water quality, sediment transport and thermal modules shall be strictly mass conserved at all levels.

4. An initial dilution model shall be used to characterize the initial mixing of the effluent discharge, and to feed the terminal level and size of the plume into the far field water quality modules where necessary. The initial dilution model shall have been proven with successful applications locally and overseas.

Model Details – Calibration and Validation

1. The models shall be properly calibrated and validated against applicable existing and/or newly collected field data before their use in this study in the Hong Kong waters, the Pearl Estuary and the Dangan (Lema) Channel. The field data set for calibration and validation shall be agreed with EPD.

2. Tidal data shall be calibrated and validated in both frequency and time domain manner.

3. For the purpose of calibration and validation, the model shall run for not less than 15 days of real sequence of tide (excluding model spin up) in both dry and wet seasons with due consideration of the time required to establish initial conditions.

4. In general the hydrodynamic models shall be calibrated to the following criteria:

Criteria	Level of fitness with field data
• tidal elevation (@)	< 8 %
• maximum phase error at high water and low water	< 20 minutes
• maximum current speed deviation	< 30 %
• maximum phase error at peak speed	< 20 minutes
• maximum direction error at peak speed	< 15 degrees
• 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

5. The consultants shall be responsible for acquiring/developing and calibration of the models for use in this study themselves. They may make reference to the models developed under the Update on Cumulative Water Quality and Hydrological Effect of Coastal Developments and Upgrading of Assessment Tool (Agreement No. CE 42/97). They may also propose to use other models subject to agreement with EPD.

Model Details – Simulation

1. 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 account of the interaction of dissolved oxygen, phytoplankton, organic and inorganic nitrogen, phosphorus, silicate, BOD, temperature, suspended solids, contaminants release of dredged and disposed material, air-water exchange, *E. coli* and benthic processes. It shall also simulate salinity. Salinity results simulated by hydrodynamic models and water quality models shall be demonstrated to be consistent.

2. The sediment transport module for assessing impacts of sediment loss due to marine works shall include the processes of settling, deposition and re-erosion. 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.

3. The thermal model shall be based on the flow field produced by the hydrodynamic model. It shall incorporate the physical processes of thermal/cooled water discharge and abstraction flow, buoyancy effect of the thermal plume, and surface heat exchange. Dispersion of biocides in the discharge shall also be simulated with appropriate decay rates.

4. The models shall at least cover the Hong Kong waters, the Pearl Estuary and the Dangan Channel to incorporate all major influences on hydrodynamic and water quality. A fine grid model may be used for detailed assessment of this study. It shall either be linked to a far field model or form part of a larger model by gradual grid refinement. The coverage of the fine grid model shall be properly designed such that it is remote enough so that the boundary conditions will not be affected by the project. The model coverage area shall be agreed with EPD.

5. In general, grid size at the area affected by the project shall be less than 400 m in open waters and less than 75 m around 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.

Modelling Assessment

1. The assessment shall include the construction and operation phases of the project. 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 set up.

2. Hydrodynamic, water quality, sediment transport and thermal modules, where appropriate, shall be run for (with proper model spin up) at least a real sequence of 15 days spring-neap tidal cycle in both the dry season and the wet season.

3. For assessing temporary discharges via the emergency outfall, the Applicant shall estimate discharge loading, pattern and duration. The worst case scenario shall include discharge near slack water of neap tide. A period of at least 15 days spring-neap cycle in wet season, but long enough for recovery of the receiving water, shall be simulated. Detailed methodology shall be agreed with EPD.

4. The results shall be assessed for compliance of Water Quality Objectives. Any changes in

hydrodynamic regime shall be accessed. Daily erosion / sedimentation rate shall be computed and its ecological impact shall be assessed.

5. The impact on all sensitive receivers shall be assessed.

6. Cumulative impacts due to other projects, activities or pollution sources within a boundary to the agreement of EPD shall also be predicted and quantified.

Appendix D

Requirements for Assessment of Sewerage and Sewage Treatment Implications

1. The Applicant shall study and assess the impacts of discharging sewage to the existing/planned sewerage system in the area served by Aberdeen Preliminary Treatment Works (APTW). The assessment shall include the following:

   (i) review and confirm whether the existing, committed, planned sewerage and sewage treatment facilities in the area served by APTW will provide adequate capacity for the Project;

   (ii) take into account any additional sewage flows from other existing/planned developments connected or to be connected to the existing, committed and planned sewerage and sewage treatment facilities in the area served by APTW;

   (iii) propose and undertake all 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 Development Flows under different development phases. Any proposed sewerage system and/or on-site sewage treatment facility should be designed to meet the current government standards and requirements. InfoWorks compatible computerized analysis techniques may be used in the preliminary design if necessary;

   (iv) identify and quantify the water quality and ecological impacts due to the emergency discharge from on-site sewage treatment plant/pumping stations, if any, and sewer bursting discharge, and to propose measures to mitigate these impacts;

   (v) identify the appropriate alignment and layouts of the new sewerage to connect to the existing/planned/future sewerage systems in the area served by APTW and investigate and assess the technical feasibility of connection (eg. technical feasibility and details for connection to public sewer and sewage pumping station); and

   (vi) set out the design, operation and maintenance requirements and identify the party responsible for the construction and maintenance of any proposed sewerage and sewage treatment facilities, such as pumping station(s) and sewage treatment plant, including electrical and mechanical components to eliminate the problem of septicity incurred in long rising main(s) 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 stream/drainage channel directly).

Appendix E -1

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 waste arising as a result of the construction and operation 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, chemical waste, floating refuse and other wastes which will be generated during construction and operation stages.

(ii) The Applicant shall adopt appropriate design, general layout, construction methods and programme to minimize the generation of public fill/inert C&D materials and maximize 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, opportunities for reducing waste generation, on-site or off-site re-use and recycling shall be fully evaluated. Measures which can be taken in planning and design stages e.g. by modifying the design approach and in the construction stage for maximizing waste reduction shall be separately considered.

(ii) The Applicant shall consider alternative project designs/measures to avoid/minimize floating refuse accumulation/entrapment and measures/proposals for the potential floating refuse problem. Regarding the potential trapping of floating refuse along the shoreline or mooring facilities of the Project, the Applicant shall estimate as far as practicable the amount of floating refuse to be found/trapped along the shoreline or mooring facilities of the Project in construction stage and after the completion of the Project. The Applicant shall develop an effective plan/design to avoid/minimize the trapping of floating refuse. If floating refuse is identified and needs to be dealt with, the Applicant shall propose appropriate measures to deal with this floating refuse in a proper and acceptable manner e.g. to collect, recycle, reuse, store, transport and dispose of.

(iii) After considering the opportunities for reducing waste generation and maximizing 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 of the result of the assessment in (v) below.

(iv) The EIA report shall also 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 waste identified and the monitoring and audit system to prevent any sea dumpling of waste or malpractice of waste disposal. .

(v) 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. This assessment

shall cover the following areas :

- potential hazard;
- air and odour emissions;
- noise;
- wastewater discharge; and
- public transport.

3. Excavation/Dredging and Dumping

(i) The Applicant shall identify and estimate excavation/dredging, excavated/dredged 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 characterize the sediment/mud concerned shall be conducted for marine disposal option. The ranges of parameters to be analyzed; 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 documented 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 best practicable excavation/dredging methods to minimize 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 E-2

Requirements for Land Contamination Assessment

1. The Applicant shall identify the potential land contamination site(s) within boundary of the Project Area 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 use 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 Application shall carry out the land contamination assessment as detailed from sub-section (i) to (iii) below and propose measures to avoid disposal -:

   (iii) During the course of the EIA study, the Applicant shall submit a Contamination Assessment Plan (CAP) to the Director for endorsement prior to conducting an actual contamination impact assessment of the land or site(s). The CAP shall include proposal with details on representative sampling and analysis required to determine the nature and the extent of the contamination of the land or site(s). Alternatively, the Applicant may refer to other previously agreed and still relevant and valid CAP(s) for the concerned site(s).

   (iv) Based on the endorsed CAP, the Applicant shall conduct a land contamination impact 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 approval. The Applicant shall then clean up the contaminated land or site(s) according to the approved RAP, and a Remediation Report (RP) to demonstrate adequate clean-up should be prepared and submitted to the Director for endorsement prior to the commencement of any development or redevelopment works within Project Area. The CAP, CAR and RAP shall be documented in the EIA report.

   (v) If there are potential contaminated sites which are inaccessible for conducting sampling and analysis during the courses of the EIA study, e.g. due to site access problem, the Applicant's CAP 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 CAP, CAR, RAP and RR upon these sites become accessible.

Appendix F

Requirements for Ecological Impact Assessment (Marine)

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 recognized sites of conservation importance and other ecological sensitive areas (including but not limited to intertidal, subtidal and benthic marine habitats, marine mammals habitats, rocky shore, sandy shore/mudflats). The assessment shall identify and quantify as far as possible the potential ecological impacts associated with the Project, both directly by physical disturbance and indirectly by changes of water quality and hydrodynamic regime to important habitats and the associated wildlife/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 to verify the information collected, to fill in the information gaps and to fulfill the objectives of the EIA Study. The field surveys shall cover flora, fauna and any other habitats/species of conservation importance and shall include but not limited to intertidal, subtidal and benthic organisms and coral communities;

   (iv) establish the general ecological profile of the study area based on information collected in the tasks mentioned in sub-section (i) to (iii) above, and describe the characteristics of each habitat found. The data set should be comprehensive and representative covering the variations of the wet and dry seasons, 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 all recognized sites of conservation importance and ecologically sensitive areas;

      (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, inter-dependence of the habitats and species, and presence of any features of ecological importance;

      (d) representative colour photographs 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 data books.

(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) coastal / marine waters;
   (b) Intertidal habitat, subtidal shores / coral communities;
   (c) Benthic communities;
   (d) sandy shores / rocky shores / inter-tidal mudflats;
   (e) seahorses;
   (f) linkages of habitats within the assessment area;
   (g) any other habitats / species identified as having special conservation interest by this EIA study.

(vi) describe recognized site of conservation importance in the study area, if any, and assess whether these site will be affected by the Project or not.

(vii) using suitable methodology (including but not limited to those adopted in other relevant EIA studies in Hong Kong), and considering also 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 due to various elements such as dredging/excavation works, reclamation and other associated works of the Project), indirect (e.g. changes in water qualities, hydrodynamics properties, hydrology, noise and other disturbance generated by the construction and operation activities etc), on-site, off-site, primary, secondary and cumulative ecological impacts on the wildlife groups and habitats identified such as disturbance to wildlife, destruction of habitats, reduction of species abundance/diversity, loss of feeding and breeding grounds, reduction of ecological carrying capacity and habitat fragmentation, in particular the following :

   (a) habitat loss and disturbance to the intertidal, subtidal and benthic communities due to reclamation, possible dredging operation, construction of seawall, sewage facilities and associated outfalls. ;
   (b) disturbance to animals and plants;
   (c) impacts due to habitat fragmentation and isolation;
   (d) impacts to fish communities, intertidal organisms, subtidal organisms, seahorses and corals during the construction and operation stages due to potential changes in water quality and hydrodynamics properties during the construction and operation stages of the Project;
   (e) impacts due to increase in human activities and disturbance during the construction and operation stages of the Project such as increase in light intensity; and
   (f) cumulative impacts due to other planned and committed concurrent development projects at or near the Project area.

(viii) evaluate ecological impact based on the best and 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;

(ix) recommend possible and practicable mitigation measures such as alternative design and configuration of the Project and modification/change of construction methods to avoid, minimize and/or compensate for the adverse ecological impacts identified during construction and operation of the Project;

(x) 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;

(xi) determine and quantify as far as possible of the residual ecological impacts after implementation of the proposed mitigation measures;

(xii) evaluate the severity 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 by following the guidelines and requirements laid down in Annex 16 of the TM; and

(xiii) review the need for and recommend any ecological monitoring programme required.

Appendix G

Requirements for Fisheries Impact Assessment

1. Existing information regarding the study area shall be reviewed. Based on the review results, the assessment shall identify data gap and determine if there is any need for field surveys to collect adequate baseline information. If field surveys are considered necessary, the assessment shall recommend appropriate methodology, duration and timing for such surveys.

2. 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 the construction and operation phases of the Project.

3. The fisheries impact assessment shall provide the following information:-

   (i) description of the physical environmental background;

   (ii) description and quantification of the existing capture and culture fisheries production and activities;

   (iii) description and quantification of the existing fisheries resources and habitats;

   (iv) identification of parameters (e.g. water quality parameters) and areas of fisheries importance;

   (v) prediction and evaluation of any direct/indirect impacts and on-site/off-site impacts on fisheries, such as potential loss or disturbance of fishing grounds, fisheries resources and habitats, spawning or nursery grounds; water quality deterioration at sensitive receivers, such as fish culture zones and artificial reefs; impacts on capture fishing operations and aquaculture activities;

   (vi) evaluation of cumulative impacts on fisheries due to other planned and committed concurrent development projects at or near the assessment area;

   (vii) proposals of feasible, practicable and effective mitigation measures with details on justification, scope and programme feasibility as well as staff and financial implications including those related to subsequent management and maintenance requirements of such measures; and

   (viii) review for the need of monitoring during the construction and operation phases of the Project and, if necessary, proposal for a monitoring and audit programme.

Appendix H

Requirements for Landscape and Visual Impact Assessments

1. The Applicant shall review relevant outline development plan(s), outline zoning plan(s), layout plan(s) and/or studies which may identify areas of high landscape value, open space, amenity area, conservation area and green belt designations. Any guidelines on landscape and urban design strategies and frameworks that may affect the appreciation of the Project shall also be reviewed. The aim is to gain an insight to the future outlook of the area affected so as to assess whether the Project can fit into the surrounding setting. Any conflict with statutory town plan(s) shall be highlighted and appropriate follow-up action shall be recommended. A system shall be derived for judging landscape impact significance as required under the TM and EIAO Guidance Note No. 8/2010 "Preparation of Landscape and Visual Impact Assessment under the EIAO". Cumulative landscape and visual impacts of the Project with other existing, committed and planned developments in the assessment area shall be assessed.

2. The Applicant shall assess the landscape impact of the Project. The Applicant shall describe, appraise, analyze and evaluate the existing and planned landscape resources and characters of the assessment area. 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 extensively 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 framework and its ability to accommodate change. The Applicant shall identify the degree of compatibility of the Project with the existing and planned landscape setting. The landscape impact assessment shall quantify potential landscape impact as far as possible, so as to illustrate the significance of such impact arising from the Project. Clear mapping of the landscape impact is required. Where applicable, broad brush and vegetation survey shall be carried out and the impacts on existing trees and vegetation with conservation interest shall be addressed.

3. The Applicant shall assess the visual impacts of the proposed Project. Clear illustrations including mapping of visual impact is required. Descriptive text shall provide a concise and reasoned judgment from visual point of view. Cumulative visual impact of the Project with other existing, committed and planned developments in the assessment area shall be assessed. The assessment shall include the following:

   (i) identification and plotting of visual envelope of the Project;

   (ii) identification of the key groups of existing and planned sensitive receivers within the visual envelope and their views at sea level, ground level and elevated vantage points;

   (iii) description of the visual compatibility of the Project with the surrounding and the existing and planned setting, and its obstruction and interference with the key views within the visual envelop;

   (iv) description of the severity of visual impact in terms of nature, distance and number of sensitive receivers. The visual impact of the Project with and without mitigation measures shall be included and illustrated so as to demonstrate the effectiveness of the proposed mitigation measures across time; and

   (v) evaluations and explanation of factors considered in arriving the significance thresholds of visual impacts.

4. The Applicant shall evaluate the merit 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, site layout, development options, design and construction method that would avoid or reduce the identified landscape and visuals impacts shall be evaluated for comparison before adopting other mitigation or compensatory measures to alleviate the impacts. The mitigation measures proposed shall not only be concerned with damage reduction but shall also include consideration of potential enhancement of existing landscape and visual quality. The Applicant shall recommend mitigation measures to minimize adverse effects identified above, including provision of a landscape design.

5. The mitigation measures shall include not limited to preservation of vegetation, and natural landscape resources, transplanting of mature trees, provision of screen planting, re-vegetation of disturbed land, compensatory planting, re-provisioning of amenity areas and open spaces, design of structure, provision of finishes to structure, colour scheme and texture of material used and any measures to mitigate the disturbance of the existing land use. Parties shall be identified for the on-going management and maintenance of the proposed mitigation works to ensure their effectiveness throughout the operation phase of the Project. A practical programme for the implementation of the recommended measures shall be provided.

6. Annotated illustration such as coloured perspective drawings, plans and section/elevation diagrams, oblique aerial photographs, photographs taken at vantage points and computer-generated photomontage, particularly from but not limited to the most severely affected vantage points shall be adopted to illustrate the significance of the visual impacts of the Project in four stage i.e existing conditions, unmitigated impacts at Day1, mitigated impacts at Day 1 and residual impact at Year 10. Options of design schemes shall be illustrated with photomontages to show the visual impact on the surrounding areas. True colour samples may be requested if found necessary and appropriate. Technical details in preparing the illustration, which may need to be submitted for verification of accuracy of the illustration shall be recorded. Computer graphics shall be compatible with Microstation DGN file format.

Appendix I

Requirements for Cultural Heritage Impact Assessment - Marine Archaeological Investigation

Marine Archaeological Investigation (MAI)

1. The assessment area for the potential archaeological impact shall include areas affected by the marine and dredging works of the Project.

2. The Applicant shall engage a qualified marine archaeologist to conduct a marine archaeological review based on the best available information to identify whether there is any potential existence of sites or objects of cultural heritage within the seabed that will be affected by the marine works of the Project, whether the identified issues can be mitigated and whether there is a need for more detail investigation. The review shall take into account the scope and nature of proposed marine works, the results of previous marine archaeological investigations, the dredging history and other diving records, etc.

3. If marine archaeological potential is identified and the need for further investigation is confirmed, a MAI shall be carried out to ascertain the archaeological value of the affected seabed area. The guidelines for MAI are set out in Appendix I-1.

4. The Applicant shall propose a programme of investigation, including the scope of works, methodology and time schedule, etc. for agreement with the Director. The MAI shall be carried out by a qualified marine archaeologist who shall obtain a licence from the Antiquities Authority under the provision of the Antiquities and Monuments Ordinance, Cap. 53. If significant archaeological remains are discovered, mitigation measures shall be designed and implemented in consultation with the Antiquities and Monuments Office (AMO).

Appendix I-1

Guidelines for Marine Archaeological Investigation (MAI)

The standard practice for MAI should consist of four separate tasks, viz. (1) Baseline Review, (2) Geophysical Survey, (3) Establishing Archaeological Potential and (4) Remote Operated Vehicle (ROV)/Visual Diver Survey/Watching Brief. Marine archaeologists should make reference to the standard and guidance of the Institute for Archaeologists and English Heritage to carry out MAI.

1. Baseline Review

1.1 A baseline review should be conducted to collate the existing information in order to identify the potential for archaeological resources and, if identified, their likely character, extent, quality and value.

1.2 The baseline review will focus on known sources of archive data. It will include:

(a) Geotechnical Engineering Office (GEO) – the Department holds extensive seabed survey data collected from previous geological research.

(b) Marine Department, Hydrographic Office - the Department holds a substantial archive of hydrographic data and charts.

(c) The Royal Naval Hydrographic Department in the UK – the Department maintains an archive of all survey data collected by naval hydrographers.

(d) Relevant government departments should be consulted in order to obtain the information of dredging history (if any) on the proposed project area. Area for sand dredging, mud disposal and allocated marine borrow area within Hong Kong should also be considered during the review.

1.3 The above data sources will provide historical records and more detailed geological analysis of submarine features which may have been subsequently masked by more recent sediment deposits and accumulated debris.

2. Geophysical Survey

2.1 Extensive geophysical survey of the study area should deploy high resolution boomer, side scan sonar, an echo sounder and high resolution multi beam sonar. The multi beam data must be presented as processed digital terrain models to facilitate the archaeological analysis. The data received from the survey would be analysed in detail to provide:

(a) exact definition of the areas of greatest archaeological potential.

(b) assessment of the depth and nature of the seabed sediments to define which areas consist of suitable material to bury and preserve archaeological material.

(c) detailed examination of the boomer and side scan sonar records to map anomalies in and on the seabed which may be archaeological material.

(d) detailed examination of the multi beam sonar data to assess the archaeological potential of the sonar contacts.

3. Establishing Archaeological Potential

3.1 The data examined during Task 1 and 2 will be analysed to provide an indication of the likely character and extent of archaeological resources within the study area. This would facilitate formulation of a strategy for investigation.

3.2 The results would be presented as a written report and charts. If there is no indication of archaeological material there would be no need for further work.

3.3 Charts should be presented at the most appropriate scale and show each survey contact. Its dimensions and exact location should also be shown.

4. Remote Operated Vehicle (ROV)/Visual Diver Survey/Watching Brief

4.1 Subject to the outcome of Tasks 1, 2 and 3, accepted marine archaeological practice would be to plan a field evaluation programme to acquire more detailed data on areas identified as having archaeological potential. The areas of archaeological interest can be inspected by ROV or divers. ROV or a team of divers with both still and video cameras would be used to record all seabed features of archaeological interest.

4.2 Owing to the heavy marine traffic in Hong Kong, the ROV/visual diver survey may not be feasible to achieve the target. If that is the case, an archaeological watching brief is the most appropriate way to monitor the dredging operations in areas of identified high potential to obtain physical archaeological information.

4.3 A sampling strategy for an archaeological watching brief would be prepared based on the results of Tasks 1, 2 and 3 to focus work on the areas of greatest archaeological potential. Careful monitoring of the dredging operations would enable immediate identification and salvage of archaeological material. If archaeological material is found, the AMO should be contacted immediately to seek guidance on its significance and appropriate mitigation measures would be prepared.

4.4 If Task 4 is undertaken, the results would be presented in a written report with charts.

Report

5. Five copies of the final report should be submitted to the AMO for record.

Appendix J

Implementation Schedule

EIA Ref.	EM&A Log Ref.	Environmental Protection Measures	Location/Duration of measures/ Timing of completion of measures	Implementation Agent	Implementation Stage **				Relevant Legislation & Guidelines
					Des	C	O	Dec	

** Des=Design; C=Construction; O=Operation; Dec=Decommissioning

Appendix K

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 50 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. To facilitate public inspection of EIA report via EIAO Internet Website, the Applicant shall provide electronic copies of both the EIA report and the executive summary prepared in HyperText Markup Language (HTML) (version 4.0 or later) and in Portable Document Format (PDF version 1.3 or later). For the HTML version, 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 the executive summary shall be provided in the main text from where respective references are made. Graphics in the report shall be in interlaced GIF format or in suitable formats accepted by the Director.

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.