

# 1. Introduction

## 1.1 Background

The idea and form of developing a site of approximately 40 ha on the northern shore of the magnificent Victoria Harbour of Hong Kong for arts and cultural facilities has had a rich history of discussion in the Hong Kong community. As a result of those discussions, a community consensus has been reached that the vision of Hong Kong should be to develop the area, now called the West Kowloon Cultural District (WKCD), into a world-class integrated arts, cultural, entertainment and commercial district. Those discussions have suggested a list of Core Arts and Cultural Facilities (CACF) including 15 performing arts venues, a cultural institution with museum functions (named “M+”) and an Exhibition Centre (EC).

The discussions have also revealed a great deal of expectations and aspirations towards the direction that the development of the WKCD should be directed towards. Remarks during that period include that the WKCD needs an optimal mix of arts and cultural facilities, a combination of large and small performing venues, to enhance artistic quality, meet established demand, fill market gaps, and help nurturing young and budding artists. The arts and cultural facilities should also suitably be clustered together with the commercial, catering and retail facilities so as to create people flow and synergy. Space should also be set aside to promote creative industries in the WKCD such as publishing, advertising, design, visual arts and cinema studios etc. Major standalone facilities should be built with iconic architectures so as to serve as the symbolic and anchor buildings in the WKCD to enhance its aesthetic appeal to both local residents and visitors from all over the world. Space should be also reserved in the WKCD to facilitate arts education, international cultural institutions and cultural exchange and co-operation.

In terms of planning, the community remarked that the WKCD should not be seen as an isolated development. Accessibility from and connectivity to the neighbouring community should be carefully thought through to help integrate the arts and cultural facilities in the WKCD with its neighbouring areas with a view to cultivate cultural ambience in the district and its immediate vicinity. Ample open space and a vibrant harbour-front should be provided to respond to the growing trend towards lowering building density, greater public awareness about good harbour-front planning and rising public aspiration for quality of life. The development should, however, adhere to prudent and transparent financing principles ensuring that the arts and cultural facilities are financially sustainable in the sense that a statutory body should have the availability to such sources of revenue as to be able to underpin the operation of the facilities without direct recourse to the Government.

The West Kowloon Cultural District Authority (WKCDA), empowered by the WKCDA Ordinance (Cap. 601), was set up by the Government with the full support of the Legislative Council (LegCo) in October 2008 to take forward the WKCD project.

Under section 21 of the WKCDA Ordinance (Cap. 601), the WKCDA is responsible for the preparation of a comprehensive Development Plan (DP). From 2009 to 2011, the WKCDA prepared the DP in three stages, namely:

- i. To conduct an exercise to gauge stakeholders’ expectations and aspirations for the DP of the WKCD as well as their views on the design and functional requirements of the CACF;
- ii. To prepare three Conceptual Plan (CP) Options; and
- iii. In the light of public comments on the CP Options collected in a Public Engagement (PE) exercise, select one option out of the three with any modifications as deemed fit by the WKCDA.

The selected option with modifications has been developed into a DP which was submitted to the Town Planning Board (TPB) on 20 December 2011 in accordance with the WKCD Ordinance (Cap. 601). Deemed as suitable for publication by the TPB, the draft DP (No. S/K20/WKCD/1) was gazetted under section 5 of the Town Planning Ordinance (Cap. 131) on 30 March 2012. On 8 January 2013, the Chief Executive in Council, under section 9(1)(a) of the Town Planning Ordinance (Cap. 131), approved the draft DP. The approved DP (No. S/K20/WKCD/2) now serves as the basis for implementation.

In accordance with the approved DP, the project area and project layout of the WKCD development to be taken forward in this EIA is shown in **Figures 1.1 and 1.2**.

## **1.2 Designated Projects under the EIA Ordinance**

The Project is a Designated Project by virtue of Item 1 of Schedule 3 of the Environmental Impact Assessment Ordinance (EIAO) (Cap.499), which specifies an “engineering feasibility study of urban development projects with a study area covering more than 20 ha or involving a total population of more than 100 000”. The Project also includes the following individual designated projects defined under Schedule 2 of the EIAO:

- (i) a flyover more than 100m in length between abutments over the Western Harbour Crossing toll plaza (Item A.8, Part I, Schedule 2); and
- (ii) an underpass more than 100m in length under the built areas (Item A.9, Part I, Schedule 2)

Locations of the Designated Project items are shown in **Figure 1.3**.

Further to the submission of the DP on 30 December 2011, the following Designated Projects which were once identified in the Project Profile submitted under the EIAO on 14 October 2011 no longer apply:

- (i) dredging works associated with the construction of the possible piers/viewing platform (Item C.12, Part I, Schedule 2) – this no longer applies as construction of the possible piers/viewing deck will not require dredging; and
- (ii) a sewage pumping station (Item F.3, Part I, Schedule 2) – this no longer applies as the sewage impact assessment (prepared as part of the DP submission) has confirmed that only individual sewage pump sumps with capacity of less than 2,000 m<sup>3</sup> per day will be required to support the proposed developments within the WKCD.

## **1.3 Objectives of the EIA Study**

In accordance with the EIA Study Brief (ESB-237/2011) issued on 21 November 2011, the EIA Study aims 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 of Environmental Protection on:

- (i) the overall acceptability of any adverse environmental consequences that are likely to arise as a result of the Project and associated works, and their staged implementation;
- (ii) the conditions and requirements for the detailed design, construction and operation of the Project to mitigate against adverse environmental consequences; and
- (iii) the acceptability of residual impacts after the proposed mitigation measures are implemented.

Section 2.1 of the EIA Study Brief sets out the specific objectives of the EIA study 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 elements of community and environment likely to be affected by the Project and/or likely to cause adverse impacts to the Project, including natural and man-made environment and the associated environmental constraints;
- (iii) to provide information on the consideration of alternative options of the Project including alternative scale/size, extent, layout, configuration/orientation, alignment, design and construction methods with a view to avoiding and minimizing potential environmental impacts to environmentally sensitive areas and sensitive uses; to compare the environmental benefits and dis-benefits of different options; to provide reasons for selecting the preferred option(s) and to describe the part environmental factors played in the selection of preferred option(s);
- (iv) to identify and quantify emission sources, including air and gaseous emission, noise emission, sewage and wastewater emission, waste generation, contaminated materials, and determine the significance of impacts on sensitive receivers and potential affected uses;
- (v) to identify and quantify any potential losses or damage to flora, fauna and natural habitats;
- (vi) to identify and systematically evaluate any potential landscape and visual impacts and to propose measures to mitigate these impacts;
- (vii) to propose the provision of infrastructure or mitigation measures so as to minimize pollution, environmental disturbance and nuisance during construction and operation of the Project;
- (viii) to investigate the feasibility, practicability, effectiveness and implications of the proposed mitigation measures;
- (ix) 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;
- (x) 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 environmental impacts and cumulative effects and reduce them to acceptable levels;
- (xi) to investigate the extent of the secondary environmental impacts that may arise from the proposed mitigation measures and to identify constraints associated with the mitigation measures recommended in the EIA study, as well as the provision of any necessary modification;
- (xii) to identify, within the study area, any individual project(s) that fall under Schedule 2 of the EIAO; to ascertain whether the findings of this EIA study have adequately addressed the environmental impacts of those projects; and where necessary, to identify the outstanding issues that need to be addressed in any further detailed EIA study; and
- (xiii) to design and specify environmental monitoring and audit requirements to ensure the effective implementation of the recommended environmental protection and pollution control measures.

#### **1.4 Key Environmental Issues**

The EIA study shall address the likely key issues specified under Clause 3.2 of the EIA Study Brief, together with any other key issues identified during the course of the EIA study:

- (i) the potential air quality impact on sensitive receivers from the construction and operation of the Project and associated works, and the potential air quality impact on the Project from the air pollutant

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- emission sources (such as vehicular emission, exhaust gas from ventilation buildings, emission from marine vessels); the potential odour impacts and nuisances from New Yau Ma Tei Typhoon Shelter, with a view to assessing and recommending sound engineered mitigation proposal(s) to avoid or minimize such impacts and nuisances to the maximum extent practicable;
- (ii) the potential noise impact on sensitive receivers caused by the Project and associated works, including the impact from construction equipments during construction and operational noise impacts from road traffic, fixed noise sources, marine traffic, railways and helicopter (if applicable);
  - (iii) the potential water quality impact caused by the Project and associated works, such as works associated with modification of seawalls, drainage and sewerage provisions, spent cooling water discharges, overflow bypass of sewage pumping stations (if applicable) and dredging works of other marine structures (if applicable);
  - (iv) the potential sewerage and sewage treatment implications, taking into account the staged implementation of planned developments within the Project;
  - (v) the potential impacts of various types of wastes, including excavated materials from construction works, construction and demolition wastes, and chemical wastes generated from the construction and operation of the Project and associated works;
  - (vi) the potential land contamination issue within the Project site;
  - (vii) the potential landscape and visual impacts caused by the construction and operation of the Project, which involves the introduction of a new urban development at a prominent location of the Victoria Harbour, including day-time and night-time visual impact from the Project;
  - (viii) the potential impact on ecological sensitive areas, the assessment of which shall be based on a field survey of at least 4 months covering the wet and dry seasons;
  - (ix) the potential fisheries impacts, if the dredging works associated with the construction of the possible piers/viewing platform will be involved in the Project; and
  - (x) 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 (such as Hong Kong Section of Guangzhou - Shenzhen - Hong Kong Express Rail Link, Road Works at West Kowloon, Proposed Road Improvement Works in West Kowloon Reclamation Development Phases I and II, Central Kowloon Route), and that those impacts may have a bearing on the environmental acceptability of the Project.

As described in **Section 1.2**, dredging work associated with the construction of the possible piers/viewing deck no longer applies. Therefore, there is no potential for fisheries impact, and item (ix) in **Section 1.4** is not required in this EIA.

## 1.5 Use of Relevant Studies

This EIA has made use of previous findings from the preliminary environmental assessments conducted as part of the Conceptual Plan Options for the WKCD project completed between 2010 and 2011. Previously approved EIA reports have also been referred to in this study, including the following:

- Hong Kong Section of the Guangzhou – Shenzhen – Hong Kong Express Rail Link;
- Road Works at West Kowloon; and
- Kowloon Southern Link.

## 1.6 Structure of the EIA Report

This EIA report has been structured as follows:

- *Chapter 2 – Project Description* presents a description of the project including consideration of alternative options and concurrent projects
- *Chapter 3 – Air Quality Impact* presents the approach, findings and recommendations from the air quality impact assessment
- *Chapter 4 – Noise Impact* presents the approach, findings and recommendations from the noise impact assessment
- *Chapter 5 – Water Quality Impact* presents the approach, findings and recommendations from the water quality impact assessment
- *Chapter 6 – Sewerage and Sewage Treatment Implication* presents the approach, findings and recommendations from the sewerage and sewage assessment
- *Chapter 7 – Waste Management Implication* presents the approach, findings and recommendations from the waste assessment
- *Chapter 8 – Land Contamination* presents the approach, findings and recommendations from the land contamination assessment
- *Chapter 9 – Ecological (Terrestrial) Impact* presents the approach, findings and recommendations from the terrestrial ecology impact assessment
- *Chapter 10 – Landscape and Visual Impact* presents the approach, findings and recommendations from the landscape and visual impact assessment
- *Chapter 11 – Environmental Monitoring and Audit Requirements* summarises the environmental monitoring and audit requirements specified in chapters 3 to 10
- *Chapter 12 – Conclusions* summarises the findings and recommendations from the environmental impact assessment
- *Chapter 13 – Implementation Schedule of Mitigation Measures* summarises the schedule for implementation of mitigation measures specified in chapters 3 to 10
- *Chapter 14 - EIA on Underpass Road Serving the Planned WKCD* presents the EIA findings for the underpass road within the WKCD site, which is a Designated Project under Schedule 2 of the EIAO
- *Chapter 15 - EIA on Austin Road Flyover Serving the Planned WKCD* presents the EIA findings for the Austin Road Flyover, which is a Designated Project under Schedule 2 of the EIAO