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ACE-EIA Paper 2/2018
For advice on 17 September 2018

Environmental Impact Assessment Ordinance (Cap. 499)
Environmental Impact Assessment Report

Lei Yue Mun Waterfront Enhancement Project

PURPOSE

This paper presents the key findings and recommendations of the Environmental Impact Assessment (EIA) report on “Lei Yue Mun (LYM) Waterfront Enhancement Project” (hereafter known as “the Project”) submitted under Section 6(2) of the Environmental Impact Assessment Ordinance (EIAO) (Application No. EIA-258/2018). The Project is a Designated Project (Item C.12, Part I, Schedule 2) under the EIAO, as it will involve dredging operation of around 11,000 m³ sediment located less than 500 m from the nearest boundary of an existing Coastal Protection Area (CPA) at the southern coast of LYM. The Civil Engineering and Development Department (CEDD) (the Applicant) and its consultants will present the report at the meeting of the EIA Subcommittee.

ADVICE SOUGHT

2. Members’ views are sought on the findings and recommendations of the EIA report. The Director of Environmental Protection (DEP) will take into account the comments from the public and the Advisory Council on the Environment (ACE) in deciding whether or not to approve the EIA report under Section 8(3) of the EIAO.

BACKGROUND

3. Since 2000, the Tourism Commission (TC) has been implementing a Tourism District Enhancement Programme to enrich Hong Kong’s appeal to visitors, and the

LYM Project has been identified as a priority item under the Programme. The TC has planned to further improve the facilities along the waterfront area in order to enhance the attractiveness of LYM for tourism development.

4. The Project comprises the construction of a promenade with a public landing facility and a breakwater (including the proposed dredging operation), and the related improvement works including the construction of a new carp-shaped viewing platform and a new pavilion, as well as the beautification works for the existing lookout points and a viewing platform at the LYM waterfront.

5. While TC is the client department of the Project, CEDD and the Architectural Services Department (ArchSD) are the works departments for the planning, design and construction of the Project; and CEDD is the lead department for submission of the EIA report for the Project under Section 6 of the EIAO. DEP, in consultation with relevant authorities, considered that the EIA report has met the requirements in the EIA Study Brief and the Technical Memorandum on EIA Process (TM), for the purpose of its exhibition for public inspection under Section 7(4) of the EIAO.

NEED FOR THE PROJECT

6. According to TC, LYM is a famous seafood tourist destination internationally and locally, but needs to maintain its status as a tourist attraction. To enhance the attractiveness of LYM, TC has initiated the Project in response to the request of the LYM community. Unanimous support has also been received from the local community including the Kwun Tong District Council, local residents, business operators and a number of Legislative Council members, who have been pressing for the early implementation of the Project over the past few years.

ENVIRONMENTAL BENEFITS

7. According to the EIA report, the Project will bring about the following potential environmental benefits to the LYM area:

- (i) **Enhance the landscape and visual quality of the LYM area:** through the provision of a new waterfront promenade, comprising a new viewing platform and a new pavilion with aesthetic design;

- (ii) **Improve the living environment of local community:** through the provision of additional open space with landscape features and leisure facilities for public enjoyment; and
- (iii) **Expedite the implementation of a new public sewerage system for the existing unsewered LYM waterfront area:** the LYM Village sewerage project being undertaken by the Drainage Services Department (DSD) will be synchronised with this Project, with a view to bringing about early improvements to the water quality and environmental hygiene conditions in the area.

DESCRIPTION OF THE PROJECT

8. The Project site is located at the waterfront, east of the LYM lighthouse, and close to the LYM villages. The layout plan of the Project is shown in **Figure 1**.

9. The existing lighthouse together with the adjacent rocky outcrop and oyster shell beach, which are located at the southern coast of LYM, have been zoned as a CPA under the existing Cha Kwo Ling, Yau Tong, Lei Yue Mun Outline Zoning Plan since 2011. The proposed dredging works for the public landing facility and the breakwater under the Project will not encroach into the boundary of this existing CPA.

CONSIDERATION OF ALTERNATIVE OPTIONS

10. The EIA report has considered alternative options for the development of the Project, including site locations, layout design and construction methodologies to avoid and minimise environmental impacts. The recommended options have taken into account environmental considerations, site constraints, operational requirements and comments received during the community engagement exercise. The key approaches that have been adopted by the Applicant to avoid or minimise environmental impacts are summarised as below:

- (i) locate the public landing facility to avoid encroaching into the CPA at the southern coast of LYM;
- (ii) locate the public landing facility and the breakwater further away from air and noise sensitive receivers to minimise the air and noise impacts, and minimise the need for clearance of residential squatters;

- (iii) adopt layout design of the public landing facility and the breakwater to reduce dredging volume and to minimise impacts on the nearby corals. In addition, CEDD has confirmed that coral translocation and/or other best practicable mitigation measures will be implemented with a view to further minimizing the impacts to the corals, which are commonly found in Hong Kong waters, as far as practicable;
- (iv) minimise active marine works area by phased construction and adopting piled deck structure for the public landing facility and the breakwater to minimise the amount of dredging works;
- (v) utilise pre-cast elements for construction of the public landing facility and the breakwater as far as practicable to minimise in-situ construction works; and
- (vi) incorporate ecological features such as seawall enhancement design, taking into account the best practical measures available as far as practicable, such as those with rough texture and irregular pattern for the vertical seawall.

SPECIFIC ENVIRONMENTAL ASPECTS TO HIGHLIGHT

Water Quality

11. Water quality impacts on various sensitive receivers including coral communities, flushing water intakes, typhoon shelter, secondary contact recreation zone at Tseung Kwan O, Tung Lung Chau Fish Culture Zone and the potential watersports activities such as the Annual Cross Harbour Swim have been assessed in the EIA report. According to the EIA report, the water quality impacts in terms of release of suspended solids and other contaminants, as well as the sediment deposition from dredging and filling activities will be highly localised and confined within 100 m of the Project site. With the implementation of the recommended mitigation measures, which include the use of closed grab dredger, deployment of silt curtains and restriction of the dredging production rate, no unacceptable water quality impacts are anticipated.

12. After the completion of the Project, it is anticipated that the water quality will be improved in the LYM area owing to the provision of the public sewerage system under the DSD's sewerage project. Moreover, the EIA report has confirmed that the LYM waterfront area will still maintain its good flushing ability. For the maintenance dredging of around 3,000 m³ to be carried out once every 5 to 10 years, the EIA report

has confirmed that no unacceptable water quality impacts are anticipated with the implementation of the same set of mitigation measures recommended for the capital dredging.

Ecology

13. The EIA study has assessed the potential marine and terrestrial ecological impacts arising from the marine-based and land-based works on the key ecological sensitive receivers.

14. The proposed construction of the public landing facility and the breakwater will have potential impacts on the existing sparse and patchy cover of corals dominated by locally common octocoral species. To minimise the impacts, the dredging operation has been reduced as far as practicable under the recommendation of the EIA report; and translocation and/or best practicable mitigation measures will be implemented before the commencement of the capital dredging works.

15. Given the relatively small scale of the dredging works and the comparatively low ecological value of the affected ecological habitats, the EIA report has concluded that no unacceptable marine ecological impacts will arise from the Project.

16. The proposed land-based works will only affect the developed area near the seafront, and the EIA report has confirmed that no unacceptable terrestrial ecological impacts will arise from the Project.

Landscape and Visual

17. According to the EIA report, the Project provides an opportunity to enhance the landscape and visual quality of the LYM waterfront by provision of a promenade with a new viewing platform and a new pavilion, improvement of streetscape, beautification of the existing lookout points and viewing platform, and creation of open space with landscape features.

18. For the landscape aspect, the EIA has recommended all the existing trees within the Project boundary will be preserved. New trees, shrubs, ground covers and climbers will be provided at the open space, viewing platforms and lookout points to further enhance the landscape quality for the LYM waterfront area.

19. For the visual aspect, the tallest structure is the 5 m high new pavilion at the waterfront promenade. Aesthetically pleasing design of all the aboveground/above-sea-level structure will be adopted, bringing beneficial impacts to the area.

Waste Management

20. The key waste management issue arising from the Project will be the generation and disposal of dredged marine sediment during the construction of the public landing facility and the breakwater. According to the EIA report, it is estimated that about 9,700 m³ of dredged marine sediment would be uncontaminated (Category L sediment) and could be disposed of at open sea (Type 1 disposal); while about 1,100 m³ of dredged marine sediment (Category H sediment) would be contaminated and would be required to be disposed of at dedicated sites (Type 2 disposal).

21. The Applicant will liaise with the Marine Fill Committee in accordance with the ETWB TCW No. 34/2002 to confirm the disposal sites for the dredged marine sediment in due course.

22. Quantities of other wastes to be generated during the construction and operation of the Project will be minimal. The EIA report has concluded that no unacceptable waste management implications will arise from the Project.

Other Environmental Impacts

23. Other environmental impacts including air quality, noise, land contamination and fisheries impacts are relatively minor and have also been addressed in the EIA report. With the implementation of the recommended mitigation measures, the Project will comply with the relevant requirements under the TM.

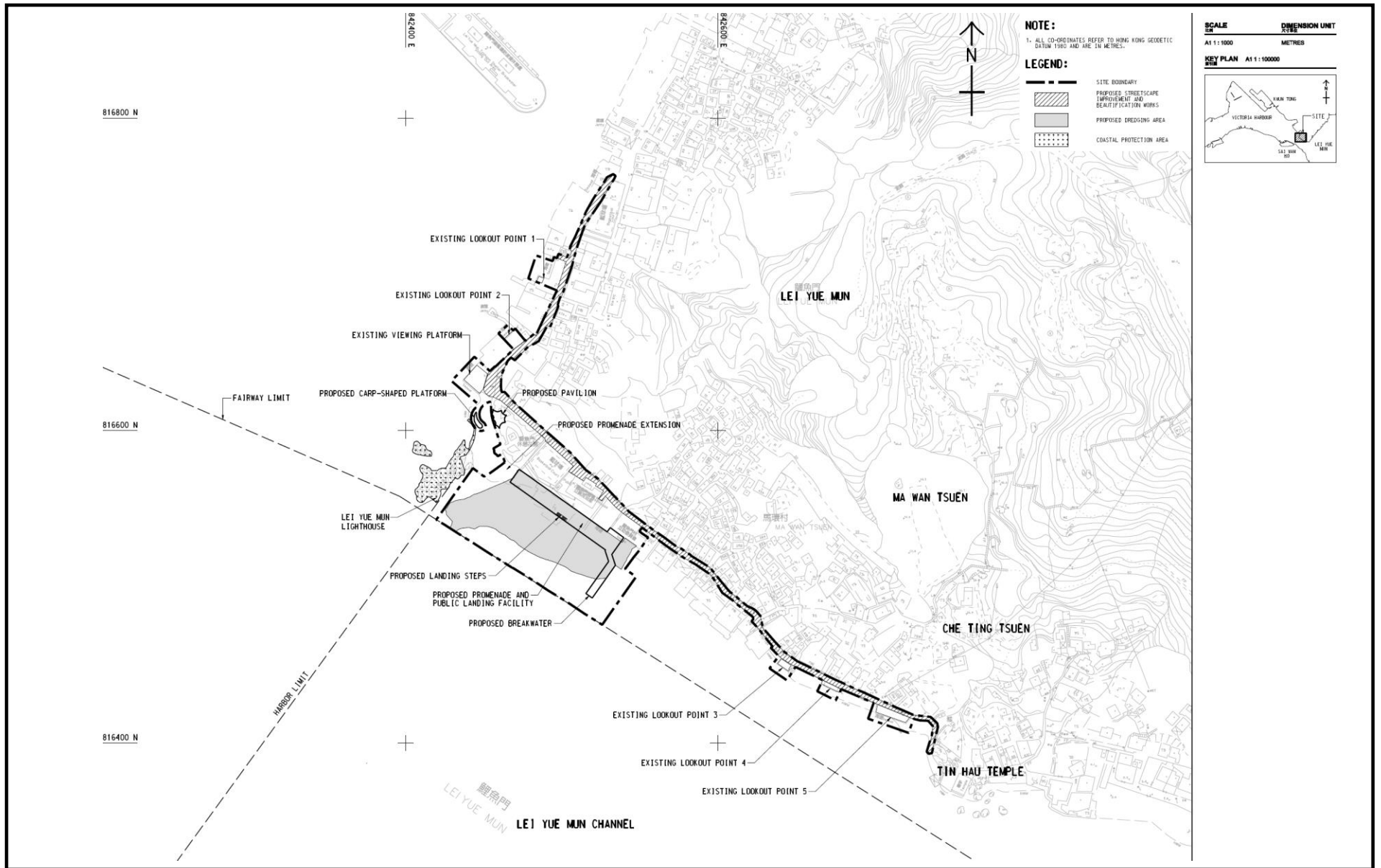
ENVIRONMENTAL MONITORING AND AUDIT


24. The EIA report has included an Environmental Monitoring and Audit (EM&A) Manual, which recommends an EM&A programme during the construction and operation phases of the Project. Key recommended EM&A requirements cover water quality, ecology, waste management, landscape and visual aspects, together with noise and air quality issues.

PUBLIC CONSULTATION

25. The applicant has made the EIA report, EM&A Manual and Executive Summary available for public inspection under the EIAO from 27 July 2018 to 25 August 2018. No public comments were received during the public inspection period under the EIAO.

September 2018
Environmental Assessment Division
Environmental Protection Department



Project Title:	Lei Yue Mun Waterfront Enhancement Project	EIA Application No.:	
Figure 1	Project Layout Plan [Remarks: This figure is prepared based on Figure 2.1 of the EIA Executive Summary]	EIA - 258/2018	