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For advice by circulation

**Report on the 115th
Environmental Impact Assessment Subcommittee Meeting**

PURPOSE

At its meeting on 24 January 2011, the Environmental Impact Assessment (EIA) Subcommittee considered the EIA reports on –

- (a) Liantang/Heung Yuen Wai Boundary Control Point and Associated Works (LT/HYW BCP) (submitted by the Civil Engineering and Development Department);
- (b) Regulation of Shenzhen River Stage 4 (SZ River) (submitted by the Drainage Services Department); and
- (c) Shatin to Central Link Protection Works at Causeway Bay Typhoon Shelter (submitted by the MTR Corporation Limited).

ADVICE SOUGHT

2. Members are requested to consider the views of the Subcommittee and advise on the three EIA reports.

THE PROJECTS

Liantang/Heung Yuen Wai Boundary Control Point and Associated Works
(ACE-EIA Paper 1/2011)

Need for the Project

3. According to the EIA report, vehicular access on the eastern side of the New Territories is at present limited to the two existing BCPs at Man Kam To and Sha Tau Kok, and all cross-boundary traffic have to negotiate through congested local roads before joining the highway system in the Mainland. Also, the BCPs at Man Kam To and Sha Tau Kok have already reached their capacity limits, and due to physical constraints, the potential for expansion is limited. Thus the existing BCPs will hardly meet the anticipated future demand in terms of capacity, convenience and level of comfort. The proposed new LT/HYW BCP will alleviate the frequent traffic congestion at Man Kam To BCP and provide room for improvement at both Man Kam To and Sha Tau Kok BCPs. It will also provide a direct linkage to the Guangdong highway network via the Eastern Corridor in Shenzhen, resulting in shorter journey times and better connection to major cities in both Guangdong and adjacent provinces.

Description of the Project

4. The project mainly comprises construction and operation of a new BCP, connecting roads and other associated works. Key components of the project include –

- (i) site formation for the construction of a BCP at HYW of about 18.3 ha;
- (ii) construction of a dual two-lane trunk road with traffic control and surveillance system connecting the HYW BCP with Fanling Highway adjacent to Wo Hop Shek – which comprises approximately 5.3 km of viaduct and/or at-grade sections, and two tunnels sections totaling 5.7 km in length, tunnel administration building and tunnel ventilation system;
- (iii) associated cargo processing, passenger-related, government, transport-related facilities for the HYW BCP;
- (iv) other peripheral structures and supporting facilities such as bridges across Shenzhen River, border road and fences, water supply system, utilities, culvert and drainage etc;
- (v) associated diversion/modification works at Lin Ma Hang Road;
- (vi) associated environmental mitigation measures, landscaping works,

drainage/sewerage, waterworks, utilities and traffic engineering works; and

- (vii) on-site sewage treatment facility (membrane bioreactor design to tertiary level) HYW BCP with provision for partial effluent reuse.

5. The project is classified as a designated project under the following items in Part I, Schedule 2 of the EIA Ordinance –

- (i) *A.1 – A road which is an expressway, trunk road, primary distributor road or district distributor road including new roads, and major extensions or improvements to existing roads.*
- (ii) *F.4 – An activity for the reuse of treated sewage effluent from a treatment plant.*

6. The location of the project and general layout of the HYW BCP are shown in **Annex A**. The construction programme is closely tied in with another project, Regulation of Shenzhen River Stage 4, for regulation of a 4.5 km section of the Shenzhen River immediately adjacent to the HYW BCP to enhance flood protection (subject to a separate EIA study carried out by Drainage Services Department). This EIA study has addressed the cumulative impacts of the two projects.

Consideration of Alternative Options

7. Alternative options for the location of the HYW BCP and alignment of the dual two-lane connecting roads have been considered in the Planning Study on LT/HYW BCP and its Associated Connecting Roads in Hong Kong completed by the Planning Department in September 2008. Further refined alternatives for the connecting road alignment, construction methods and sequences of works were considered in this EIA study. Environmental benefits and disbenefits of various alternatives were considered in recommending the preferred option.

8. The current HYW BCP location is considered suitable on environmental grounds as it has a larger separation distance from the nearest sensitive receivers (Tsung Yuen Ha Village and Kong Yiu Drainage Channel) and the location offers increased flexibility for implementing landscape mitigation measures. A total of 10 refined connecting road alignments were considered in this EIA study and the preferred option was considered having the least overall environmental impacts as there are fewer nearby sensitive receivers and its construction will not require the use of explosive in

close proximity to any sensitive receivers. The preferred alignment will avoid direct encroachment upon the Fung Shui Woodland at Tan Chuk Hang Lo Wai, the Tan Shan River and nearby country park.

Regulation of Shenzhen River Stage 4

(ACE-EIA Paper 2/2011)

Need for the Project

9. The EIA report states that Shenzhen River is the boundary river between the Hong Kong Special Administration Region (HKSAR) and the Shenzhen Special Economic Zone. In order to prevent serious flooding problems in the vicinity on both sides, the government of the HKSAR and the Shenzhen Municipal Government have jointly completed the Shenzhen River Regulation Programme Stage 1, 2 and 3 between 1997 and 2006 to meet flood prevention performance of PRC National Standard and Hong Kong Standard. About 13.67 km in length of the Shenzhen River, starting from the confluence with Ping Yuen River to the river mouth, has been regulated under the first three stages of the regulation programme. The project is to extend the Shenzhen River Regulation Programme for a 4.5 km section of the Shenzhen River upstream of the previously completed section under Stage 3.

Description of the Project

10. The scope of the project is as follows –

- (i) regulation of an approximately 4.5 km long section of the Shenzhen River upstream of the Ping Yuen River;
- (ii) re-provision of a border road and border security fence of about 4.5 km in length; and
- (iii) associated drainage and landscaping works.

11. The project is classified as a designated project under Item I.1, Part I, Schedule 2 of the EIA Ordinance: *A drainage channel or river training and diversion works which discharges or discharge into an area which is less than 300 m from the nearest boundary of an existing site of special scientific interest (SSSI), i.e., Mai Po Marshes and Inner Deep Bay SSSI.*

12. The location and general layout of the project are shown in **Annex B**. The project will tie in with the development of the proposed LT/HYW BCP, therefore the EIA study has addressed the cumulative environmental impacts of the two projects.

Consideration of Alternative Options

13. The EIA has considered two options for the river improvement works: Options A and B as follows –

- (i) Option A: Maintain the existing alignment of the concerned section of the Shenzhen River as far as practicable so that massive excavation, dredging or filling will be avoided. Different designs such as trapezoidal, vertical or compound channel will be used with reference to the existing conditions. The river-side slope will be at the ratio of 1:2 to 1:5 and the standard bottom width of the riverbed will be in a range of 14 to 32 m.
- (ii) Option B: Sections of the Shenzhen River will be straightened and widened. The regulation works will mainly be in the form of trapezoid open channel with side slope at the ratio of 1:3. The standard bottom width of riverbed will be in a range of 14 to 16 m.

14. Environmental benefits and disbenefits of the two options have been evaluated. The EIA concluded that Option A will preserve the existing river alignment with river bed remaining as natural bottom without concreting, hence will provide diversified river and riparian habitats after the modification. The two options were also evaluated against land requirements, management and maintenance during operation and cost. The overall conclusion is that Option A is the preferred option.

Shatin to Central Link Protection Works at Causeway Bay Typhoon Shelter

(ACE-EIA Paper 3/2011)

Need for the Project

15. The EIA report states that the Shatin to Central Link (SCL) is strategically important for connecting the existing railway lines into an integrated rail network, which will facilitate a direct link between Mainland China and Hong Kong Island. As the future SCL (Hung Hom to Admiralty Section) project will interface with Central-Wanchai Bypass (CWB) project at the Causeway Bay Typhoon Shelter (CBTS), to make optimum use of the reclamation provided by CWB for the construction of SCL,

this project will avoid additional future reclamation due to SCL works in the interfacing region and thus minimize impacts on the users of the CBTS.

Description of the Project

16. The scope of the project consists of a temporary reclamation of 0.4 ha, dredging of around 1 ha at the southeast corner of the CBTS, construction of a section of tunnel structure (approximately 160 m long) above the proposed CWB, relocation of the temporary Royal Hong Kong Yacht Club jetty and removal of the temporary reclamation. Though intended for use by the future SCL, the project would be entrusted to the CWB project and carried out by the CWB Contractor. The project is a designated project under Item C.12 (b), Part I of Schedule 2 of EIA Ordinance: *A dredging operation which is less than 100 m from a seawater intake point.* The project is limited to civil and structural elements of the protection works and cannot serve to function for any railway service or operation. The project location is shown in **Annex C**.

Consideration of Alternative Options

17. Chapter 2 of the EIA report presents the consideration of alternatives/options for the project, including the “No Reclamation” options (such as “Bridge Option”, “Deep Tunnel Boring Machine (TBM) Tunnel Option” and “Shallow TBM Tunnel Option”) and the “Reclamation” Options (such as “Immersed Tube Tunnel (IMT) Eastern Corridor Option” and “IMT Western Corridor Option”). The preferred options/designs have taken into account environmental factors such as impacts arising from different construction methods; alternatives to reclamation including Bridge and TBM options mentioned above; engineering practicability such as the use of pipe piled cofferdams without the need for reclamation and temporary seawalls, and the extension of IMT tunnel from SCL (Hung Hom to Admiralty Section) to CBTS; construction risk associated with future construction of SCL tunnel above the CWB tunnel; and programme requirements to ensure the integration with the CWB project to minimize the extent and duration of reclamation.

VIEWS OF THE SUBCOMMITTEE

18. Members noted that the public inspection period of the two EIA reports on LT/HYW BCP and SZ River was from 18 December 2010 to 16 January 2011. Public comments received by the Environmental Protection Department (EPD) were circulated

to Members for reference before the meeting. The public inspection period of the EIA report on SCL was from 8 December 2010 to 6 January 2011. No public comment was received by EPD.

19. As the two EIA reports on LT/HYW BCP and SZ River are closely inter-related, Members agreed to have combined discussion for the two reports to facilitate Members' consideration of the projects. A summary of issues discussed by the Subcommittee is at **Annex D**. As regards the EIA report on SCL, a summary of issues discussed by the Subcommittee is at **Annex E**.

RECOMMENDATION OF THE SUBCOMMITTEE

20. Having regard to the findings and recommendations of the EIA reports and information provided by the project proponents, the Subcommittee agreed to make the recommendations below to the full Council.

Liantang/Heung Yuen Wai Boundary Control Point and Associated Works

21. The EIA report could be endorsed with the following proposed conditions –
- (a) the project proponent should submit a Habitat Creation and Management Plan for the Wetland Compensation Area and an updated Woodland Compensation Plan to the Director of Environmental Protection (DEP) for approval before commencing the construction of the project. The project proponent should closely monitor the implementation and effectiveness of the mitigation measures proposed under the Plans;
 - (b) the project proponent should conserve the topsoil generated from the project for reuse and submit a Topsoil Management Plan to the DEP for approval before commencing the construction of the project;
 - (c) the project proponent should include a monitoring and response mechanism in the Environmental Monitoring and Audit programme for handling exceedances of environmental standards during the construction phase in collaboration with relevant parties of other concurrent projects in the vicinity;
 - (d) the project proponent should conduct the following additional archaeological surveys after resumption of private lands and submit a report on the findings of

the additional archaeological surveys and further mitigation measure requirements to DEP for approval before commencing the construction of the project –

- (i) additional test pits and auger holes along the section of the project between Lin Ma Hang and Frontier Closed Area Boundary; and
- (ii) a survey-cum-rescue excavation along the section of the project between Ping Yeung and Wo Keng Shan.

22. Apart from the above conditions, the Subcommittee recommended to advise the project proponent to pay particular attention to adopt low carbon practices throughout the construction and operational phases.

Regulation of Shenzhen River Stage 4

23. The EIA report could be endorsed with the proposed condition that the project proponent should include a monitoring and response mechanism in the Environmental Monitoring and Audit programme for handling exceedances of environmental standards during the construction phase in collaboration with relevant parties of other concurrent projects in the vicinity.

24. Apart from the above condition, the Subcommittee recommended to advise the project proponent to pay particular attention to adopt low carbon practices throughout the construction and operational phases.

Shatin to Central Link Protection Works at Causeway Bay Typhoon Shelter

25. The EIA report could be endorsed without condition.

26. Nonetheless, the Subcommittee recommended to advise the project proponent to pay particular attention to adopt low carbon practices throughout the construction and operational phases, and to use ultra low sulphur diesel fuel for working boats used within the work sites.

**EIA Subcommittee Secretariat
February 2011**