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ACE Paper 26/2005
For advice

Report on the 94th Environmental Impact Assessment Subcommittee Meeting

Introduction

At its meeting held on 24 October 2005, the Environmental Impact Assessment (EIA) Subcommittee considered the Guidance Note on Road Traffic Noise Impact Assessment. Separately, the Subcommittee considered the EIA report on Drainage Improvement in Southern Lantau by circulation. The majority of Members agreed that the EIA report could be considered by the Subcommittee without a presentation by the project proponent and could be endorsed without condition.

Advice Sought

2. Members are requested to advise whether the EIA report on Drainage Improvement in Southern Lantau could be endorsed without condition. Members are also invited to note the views of the Subcommittee on the Guidance Note on Road Traffic Noise Impact Assessment.

Views of the EIA Subcommittee

EIA report on Drainage Improvement in Southern Lantau
(ACE-EIA Paper 6/2005)

Need for the project

3. In a previous study conducted by the Drainage Services Department (DSD), deficiencies and flooding problems were identified in the existing drainage systems in the Southern Lantau area. The project is part of the recommendations of the study to upgrade the existing drainage capacity to alleviate the flooding problems. DSD is the applicant for the project.

Description of the project

4. The project is to carry out drainage improvement works in the Pak Ngan Heung (PNH) River, Tai Tei Tong (TTT) River and Luk Tei Tong (LTT) River and to construct a U-channel at Ling Tsui Tau Village in Mui Wo. Location of the Project is shown in Figure 1. Major works of the project include –

(a) For PNH River, construction of gabion wall with natural bed of approximately 80 m long at the upstream, three cells diversion box culvert of approximately 180 m long and rectangular channel of approximately 100 m long at the downstream;

(b) For TTT River, widening of three existing bottlenecks with gabion lining;

(c) For LTT River, construction of a by-pass channel of approximately 350 m long and gabion wall with natural bed of approximately 240 m long; and

(d) For U-channel at Ling Tsui Tau Village, construction of a 750 mm wide U-channel of approximately 200 m long.

5. The project is classified as a designated project under Item C.12, Part I, Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO), i.e. "a dredging operation which is less than 500 m from the nearest boundary of an existing bathing beach".

Members' views and conclusion of the Subcommittee

6. Having regard to the findings and recommendations of the EIA report, Members agreed by circulation that the EIA report could be endorsed without condition. The Subcommittee endorsed Members' views and agreed to recommend the EIA report to the full Council for endorsement without condition. Members noted that no public comments were received up to the date of the Subcommittee meeting.

Guidance Note on Road Traffic Noise Impact Assessment
(ACE-EIA Paper 7/2005)

Purpose of the Guidance Note

7. To facilitate the work of stakeholders in the EIA process, the Environmental

Protection Department (EPD) has issued more than ten guidance notes on various aspects by consolidating the experience of the department and stakeholders and after consulting the EIA Subcommittee. These guidance notes are available on the web site of the EIAO. The Guidance Note on Road Traffic Noise Impact Assessment aims to facilitate the practitioners to prepare the road traffic impact assessment having regard to the circumstances and conditions in Hong Kong. The Guidance Note has taken into account feedbacks of stakeholders and experience and practices in the past 10 years on road traffic noise impact assessment in Hong Kong.

Members' views

8. Members' observations and concerns, and the presentation team's explanations are summarized as follows –

(a) Traffic noise modeling - Members noted that the commonly accepted methodology for the assessment of road traffic noise in Hong Kong, as stated in the Technical Memorandum under EIAO, was based on the "Calculation of Road Traffic Noise (CRTN)" issued by the Department of Transport in the United Kingdom. Tests had been conducted to ensure the applicability of the methodologies to Hong Kong and some adjustments had been made to take into account the unique circumstances in Hong Kong, e.g. topographical characteristics and high-rise development of Hong Kong.

(b) Corrections of predicted noise levels to account for different materials for road surface and noise barriers – Members noted that the corrections of predicted noise levels to account for different materials used for road surface and noise barriers had been taken into account in the CRTN and thus not included in the Guidance Note.

(c) Noise barriers as mitigation measure –

(i) Members noted that a guideline was jointly published by the EPD and the Highways Department to facilitate project proponents in considering noise barriers as noise mitigation measure and their visual impact. The guideline included information on the choice of barrier materials and construction with respect to various factors such as safety, fire and colour schemes. Under the EIAO, Planning Department would advise on the visual aspects of noise barriers.

(ii) Members noted that project proponents were required to differentiate sections of barriers proposed to protect existing noise sensitive receivers (NSRs) from those for protection of future NSRs (paragraph 4.7.10). This was based on the guiding principles in implementing noise barriers set out by the Environment, Transport and Works Bureau in 2003. In conducting road traffic noise impact assessment, predictions of noise impact on future NSRs and assessment on the need for noise barriers were required. If the need for barriers was established, the project proponent had the flexibility to construct the foundation structure for future barriers first and then erect the barriers when it was needed (usually before the occupation of the future NSRs). More detailed information of the barriers, such as timing and responsible party for constructing the barriers, had to be included in the "Implementation Schedule" of the EIA report.

(d) Quality of traffic data – Members noted that to ensure the quality of the traffic data adopted for noise assessment, the project proponents or their consultants were required to consult and demonstrate to the relevant authority, i.e. Transport Department (TD) on the accuracy of the traffic data for application to the noise assessment (paragraph 4.6.1). When irregularities were observed, EPD could require explanations and justifications directly from the project proponents or discuss with TD. Any major issues could be discussed or resolved in the meeting of Environmental Study Management Group. In case of disagreement or unresolved issues between the two departments, the case would be drawn to the attention of the senior level for decision. To ensure accuracy of the traffic noise predictions, project proponents were required, as spelt out in the EIA study brief, to submit softcopies of their calculations and workings for verification and checking purposes.

(e) Presentation of data –

(i) Members supported the rounding off of overall noise level results (in dB(A)) to whole numbers to avoid confusion and facilitate comparison and interpretation of data.

(ii) For the reporting of noise assessment data in EIA reports, Members noted that project proponents were required to include sources of data quoted and relevant approving authorities.

(f) Interpretation of data –

(i) Some Members were concerned about the interpretation of noise level results which only marginally exceeded the relevant noise criteria or standards and suggested to factor in a level of uncertainty. Members noted that a margin error in prediction of about ± 2 d(B)A had been taken into account in deriving the traffic noise standards under the CRTN methodology. Moreover, all project proponents were required to adopt the same methodologies under the CRTN and uncertainty factors were taken into account. Moreover, from the strategic point of view, a line had to be drawn for setting a standard as a trigger-off point for attention and action, and the practice of interpretation was in line with that adopted in the United Kingdom.

(ii) Some Members suggested the use of worst-case scenario in terms of traffic flow, including volume and composition, for prediction purpose similar to the approach adopted for air quality assessment. Members noted that project proponents were required to take into account the predicted maximum traffic flow within 15 years after completion of the modification which could be regarded as an approach similar to the worst-case scenario.

(iii) Members noted that the same set of traffic data was adopted as the basis for both road traffic noise impact assessment as well as air quality assessment. Both the assessment of noise and air quality impacts would take into account the predicted maximum traffic flow within 15 years after completion of the modification.

(g) Identification of NSRs and assessment points – Members noted that EPD staff would conduct site inspections for identification and verification of NSRs and assessment points proposed by project proponents. Joint site inspections would be conducted when necessary.

(h) Definition of designated projects and status of roads – Members noted that the scope of designated road projects or improvement works was specified in the schedules of EIAO and the change in status of roads would be publicly announced. For example, Schedule 1 of the EIAO specified “Expressway” to be an expressway within the meaning of section 122 of the Road Traffic Ordinance.

(i) Development of Harmonoise in Europe – Members noted that EPD was closely monitoring the development of Harmonoise, which was a standardized noise assessment methodology being developed in Europe. The department noted that a special working group had been set up by the European Union for developing Harmonoise for noise assessment for mapping and comparison of noise exposure between countries. The department would continue to monitor the development.

Conclusion

9. Members supported the issue of the Guidance Note which could facilitate the work of the practitioners and minimize disputes. Members also made the following recommendations and suggestions on the Guidance Note –

(a) to elaborate more clearly that the "overall noise level" in paragraph 4.7.7 referred to overall traffic noise level and the "cumulative noise impact" referred to additional overall traffic noise level on top of the existing traffic noise level before the road project commenced;

(b) to add "landscape and visual impacts" as one of the factors mentioned in paragraph 4.7.11;

(c) to elaborate more clearly the relationship between composition of heavy vehicle, speed and noise impact in paragraph 6.2;

(d) to require project proponents to spell out clearly in the EIA reports the assumptions in traffic data and modeling as well as details on the proposed noise barriers such as design, configuration and colour scheme;

(e) to conduct random checks on the traffic noise modeling data submitted by project proponents for quality assurance;

(f) to consider, for long-term planning, including more parameters on top of dB(A) in noise impact assessment especially in addressing the problem of boundary or marginal effect;

(g) to consider reviewing traffic noise standards in a broader perspective at the level of the full Council at a later stage ; and

(h) to devise a Guidance Note on rail noise impact assessment as rail transportation would be a favoured mode of transportation in the long run.

EIA Subcommittee Secretariat
November 2005

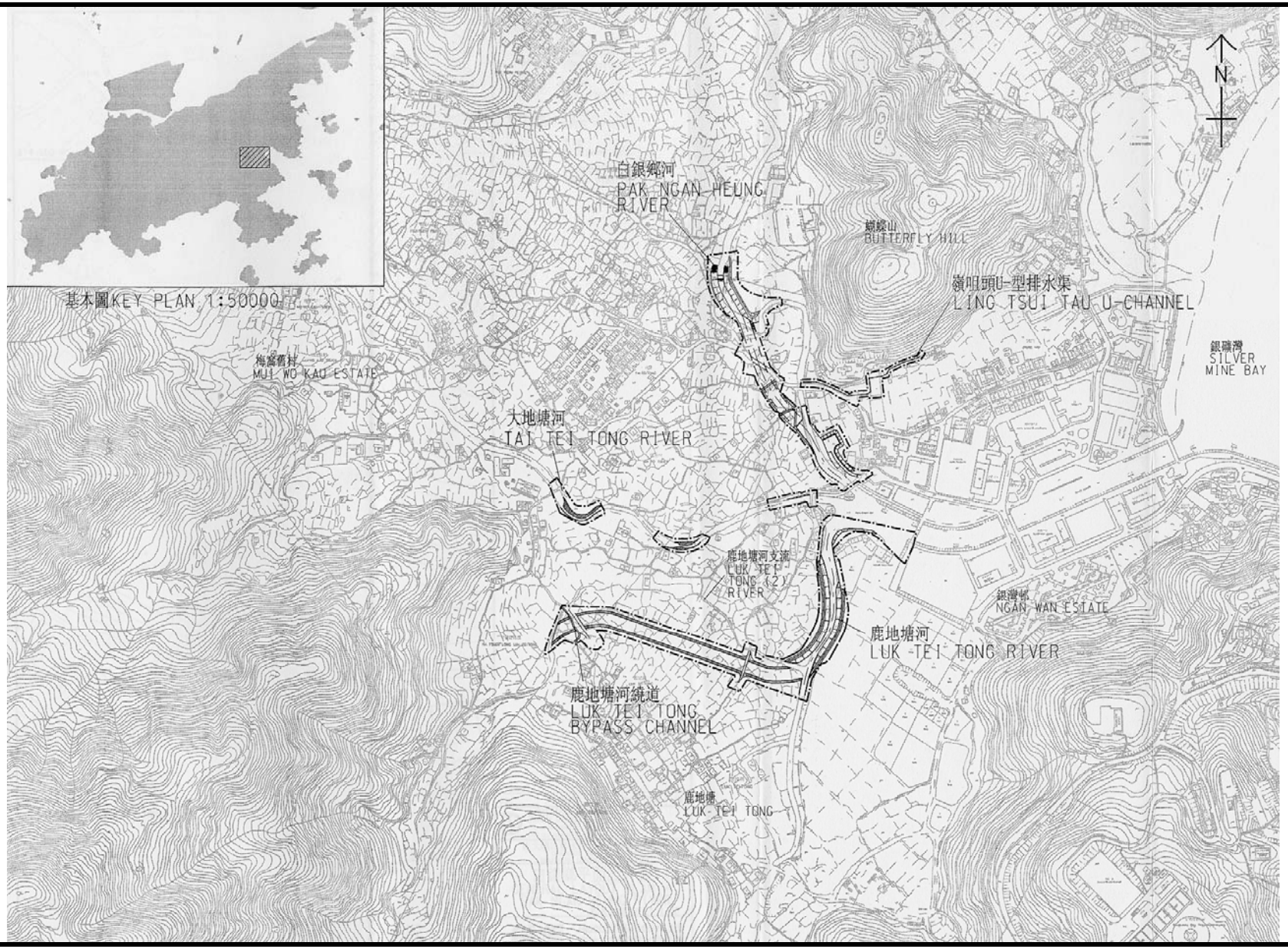

Figure 1: Project Location
Project Title : Drainage Improvement in Southern Lantau