



香港地貌岩石保育協會
Association for Geoconservation, Hong Kong

11 September 2009

Re: Tuen Mun-Chek Lap Kok Link (EIA-174/2009)

Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities (EIA-173/2009)

Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road (EIA-172/2009)

The main interest of Association for Geoconservation, Hong Kong (AGHK) is the conservation of geological heritage, natural landforms and scenery in Hong Kong. We are writing to express our serious concerns on the methodology and conclusion of the EIA Report as follows:-

1 Adequacy of EIA pertaining to Geological Heritage

In this EIA, geological heritage does not constitute a chapter. Nevertheless, the chapter on “Landscape and Visual Impact Assessment (LVIA)” is a relevant chapter as natural landscape and scenery are addressed. Geology and landforms are the fundamental basis of natural landscape and scenery, yet these are either not addressed at all or else poorly considered in the EIA. Cl. 14.1.3.2 of the EIA Report states that “The landscape elements considered include (among others) geological features”. However, it is apparent from the scarcity of discussions in the EIA Report that “geological features” have not been seriously considered and it is doubtful whether qualified specialists have been involved. This situation reflects a major inherent weakness in the methodology of the LVIM.

2 Adequacy of Study Area pertaining to Geological Heritage and Natural Scenery

Cl. 14.1.3.1 stipulates the study area for “Landscape Resources (LR)” and “Landscape Character Area (LCA)” to be within 500m of the proposed development. This is a fundamental flaw where the route is located in open area and amidst natural landscape, notably where the HKLR passes offshore of San Shek Wan/Sham Wat and northeast Tai O. The restriction of LR and LCA to a mere 500m in such situation and in fact an over-structured approach of the EIA have resulted in a failure to touch on some of the most important landscape resources in the area including the San Shek Wan - Sham Wat –Tai O Coast, the Lingding Bay (Pearl River Estuary) and the glorious sunset scenery in the area.

3 Geological Heritage – Coastline of San Shek Wan/Sham Wat/Tai O

The shoreline is composed of reddish, Lower Jurassic Tai O formation grey to red fine-grained sandstone and siltstone. This stretch of shoreline is known together with those around Double Haven (NE New Territories) as the “Red Coasts” (see attached diagram) of Hong Kong. The coast is completely natural with a dramatic view along the Tung Chung – Tai O Hiking Trail. The rock formations at the promontories on both sides of the Sham Wat Bay are tilted at moderately steep angle.



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These, together with the deeply indented bay of Sham Wat, are distinct geological features of scientific, educational and aesthetic values. The EIA Report evidently fails to appreciate such important landscape resources and geological heritage due to the inadequacies addressed in the above items 1 and 2. There are no discussions on issues such as how the proximity of the highway and traffic will degrade the quality and attractiveness of the coastline. Such omission in turn could have led to inadequate consideration in locating the HKLR as far as possible from the shoreline.

While the EIA Report does quote the Tung Chung – Tai O Hiking Trail, Table. 14.21 only considers visually sensitive receivers along the shoreline to be residents (e.g. VSR2, VSR3 and VSR4). The Report has not provided for any VSR along a long stretch of the hiking trail at San Shek Wan and Sham Wat. It is therefore doubtful whether the values of the natural landscape and scenery in this area have been suitably evaluated.



Geological heritage and shoreline of outstanding beauty – Reddish coastline and Promontories of the Tai O Formation at Sham Wat

4 South East Shoreline at HK International Airport

The natural granitic, rocky shoreline currently preserved along the eastern part of the Airport Island (in particular around Dragonair Building) is valuable and constitutes a unique scenic view for the heavily developed airport. We are very concerned that the EIA has been written in every way to justify the reclamation. Overall, the EIA has grossly undermined the amenity, aesthetic and recreational values of this existing stretch of shorelines. These are exemplified as follows:

(4.1) The EIA Report comments that “Rocky shores are not rare in Hong Kong” (Table 14-9). Following the logic of this comment, any rocky shores in Hong Kong are not particularly valuable because they are not rare. The EIA should focus on the value of rocky shores in the area context. Relevant questions would be “are rocky shores rare on the Airport Island?” or “Does this stretch of natural shoreline at the Hong Kong International Airport make it unique and particularly attractive among other major airports in the world?”



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(4.2) The EIA Report says that “With reference to Geological Map of Hong Kong (CEDD), it is noted that the area of existing shoreline is classified as Lantau Granite with some volcanic intrusions that is composed of sediments ranging widely from clays and silts, to sands, gravel and also cobbles and boulders. The existing natural rocks are commonly found in Hong Kong, without particular special value. The area is not within the coverage of Geopark of Hong Kong (refer to ‘Knowing Hong Kong Geopark (AFCD)’ and that “In terms of landscape character and visual quality, the area does not provide unique landform of particular value for the purposes of tourism and leisure use. The discontinuity of natural shoreline portions and informal access limits its recreational value. Thus it does not provide valuable educational tourism and leisure use currently.”

Judging from these statements, the EIA study seems to be no more than a shallow and quick desk top task to justify the destruction of the shorelines. What is the point of referring to the Geopark which everyone knows is in Sai Kung? In fact, geological heritage is not restricted to the Geopark. The EIA Report also fails to appreciate that the east coast of the Airport has some leisure use with a trail which provides an escape for airport staff, hotel guests and airport visitors. The natural shoreline is a contrast with the artificial airport construction. Previous retention of this shoreline at the time of airport construction is visionary but this seems to be completely negated in the EIA Report. AGHK considers that any remaining natural shorelines at the Airport are precious and should not be readily sacrificed.

AGHK considers that all efforts should be made to preserve at least part of the shorelines and shoreline features and that more sensitive design should be incorporated. Furthermore, any new shorelines should incorporate access for the public rather than having just a massively planted screen of vegetation as suggested in Fig. 14.4.2 of the EIA.

5 Re-use of Natural Rock Materials and Architectural Design

In general, we support the extensive use of natural rock materials from tunnel construction for landscape purpose. It should be noted that granite at Chek Lap Kok is known to yield beautiful quartz crystals. We also consider that any architectural designs for buildings, tunnel portals, parapets, signage and facilities etc should be subtle and compatible with the surrounding landscape and scenery. However, the successful application of these concepts will require substantial care and sensitivity in the design.

6 Tai Ho Wan Area

At present, the Tai Ho Wan lagoon is somewhat screened from the North Lantau Highway with vegetation. The future slip roads leading to the BCF will be raised and frequent taller heavy vehicles could become highly visible from the bay and villages. This will undoubtedly undermine the amenity and attractiveness of the existing serene bay. We therefore consider that some consideration is given to this issue. While we do not advocate the indiscriminate use of tall barriers as a visual screen, partial screening with plants, panels, barriers or other materials would still be desirable.



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To conclude, as with all other EIA reports, geological heritage have again been neglected in captioned three projects. We urge your Department, in addition to the landscape and visual impact assessment, to embody the assessment and evaluation of the impact on geological heritage in the EIAO which would be a more holistic approach to conserve our environment.

Yours faithfully,

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