

**EIA report on  
“Construction of Cycle Tracks and the Associated Supporting Facilities  
at Nam Sang Wai, Yuen Long”**

**A summary of issues discussed by the  
Environmental Impact Assessment Subcommittee at the meeting on 29 April 2013**

The Environmental Impact Assessment Subcommittee (EIASC) discussed the EIA report on “Construction of Cycle Tracks and the Associated Supporting Facilities at Nam Sang Wai, Yuen Long” at its meeting on 29 April 2013. The issues discussed were summarized below.

***Alternative for the proposed bridge crossing at Shan Pui River***

2. Members noted that Nam Sang Wai Road and Yau Pok Road were one-lane two-way roads ending in cul-de-sacs which currently were co-used by vehicles and cyclists. The situation was considered undesirable from road safety point of view. The Yuen Long District Council and Rural Committees had been requesting provision of proper cycle tracks along the roads having regard to the number of traffic accidents recorded in the area. The proposed bridge at Shan Pui River was intended for use by cyclists and visitors as well as providing an emergency vehicular access (EVA) for ambulances. General vehicular use would not be allowed. With the construction, the bridge could provide a rescue route for ambulances to go direct to Yuen Long town area for emergency operation without the need to routing back along Nam Sang Wai Road. Regarding traffic statistics to justify the construction, Members were advised that unlike traffic forecast for a road network, data were not available on the number of cyclists and visitors who were expected to use the proposed bridge for recreational purpose.

***Methodology of the baseline bird survey***

3. Members had the following observation on the conduct of the baseline bird survey as recorded in the EIA report –

- (a) The August 2008 data was not shown in the transect survey result;
- (b) The timing and tidal level when the point count and transect surveys were conducted were not shown;

- (c) In order to facilitate statistical comparison of the bird data in days of different visitor load and to enable more accurate impact assessment of the additional visitor load, sampling of point count survey should be done on consecutive weekdays and weekends in order to provide comprehensive data on the difference in bird abundance in relation to visitor load, rather than conducting the survey only during weekdays as adopted by the consultant team;
- (d) Methodology of the counting sequence of point count was unclear;
- (e) Essential information on the survey including the number of 10-minute sessions used at each point at each tide in a sampling day; the method to determine the accuracy of the count by observing within 100 meters along the river bank; the breeding seasons of other bird species not being covered in the survey; the inconsistency of the W-value and P-value of the statistical tests of abundance and species richness between the upper and lower sections of Shan Pui River in different parts of the report and the rationale for using the data analysis method for the point count survey were not covered; and
- (f) There was a need to have an accurate assessment of the operational impact of the cycle tracks and visitor load to the bird community along the river channel by relating the information of bird abundance and density to high visitor day.

4. The consultant team had offered the following information in response to Members' comments on conduct of the bird surveys –

- (a) Purpose of the point count survey was more to identify the ecological sensitive area in order to avoid/minimize environmental impacts brought to the area, rather than to collect an exhaustive list of bird species identified along the river channel;
- (b) Baseline information for the surveys had been collected from the Agriculture, Fisheries and Conservation Department (AFCD) and the Bird Watching Society at the planning stage;
- (c) Locations of transect and point count surveys had covered the majority of the aligned cycle tracks, except some local villages and developed areas as set out in the EIA report;
- (d) Point count survey was done sequential to transect survey at the most sensitive time, i.e. during the low tide period when the surveyors travelled by car from one survey point to the next so as to minimize the time lag in counting between the survey points; and
- (e) Selection of samples were purposely conducted on weekdays only as

bird abundance should be more representative with less human disturbance, which in turn would allow the surveyors to assess the most ecological sensitive area in the survey. The worst case scenario could then be envisaged. It was on this basis that the location of the bridge crossing at Shan Pui River was moved upstream as now proposed in the EIA report

### ***Identification and evaluation of potential ecological impacts***

5. Members raised concerns on the degree of disturbance to the bird community and the corresponding mitigation measures to be adopted. They questioned that the discrepancies of the W-value and P-value in the EIA report could have led to mis-assessment of the significant difference in the statistical tests between the upper and lower sections of Shan Pui River. Members requested the project proponent team to have accurate assessment of the ecological impact on the most sensitive area such as the site for the proposed bridge during the operational phase in terms of the anticipated number of visitors and the carrying capacity of the bridge. They also asked for further evidence that, apart from ardeids, other groups travelling along the river channel such as pied avocets, black-winged stilts and ducks would not be affected by the construction of the proposed bridge. Concerns were further raised on the impact on Eurasian Otters as the access points to the reed beds for otters would be reduced due to engineering works at the bridge area.

6. Regarding the site location of the mitigation wetland for compensating the habitat loss arising from the proposed bridge, the consultant team explained that the proposed compensatory measure was not to create a new wetland but to enhance two existing fishponds to compensate for the loss of foraging ground. Members appreciated that there would be provision of a sloping mudflat in the fishpond area to compensate the loss of feeding opportunities for waterbirds, but they opined that the consultant team should look into the ecological value of the bridge area as the habitat loss was more than the loss of a foraging area, and the compensatory fishponds could not be taken a like-for-like compensation for the habitat loss.

7. As regards the exotic mangrove *Sonneratia* species found along Kam Tin River and Shan Pui River, Members commented that it would not be appropriate to rely on the species to be the natural visual barriers for waterbirds as the species was sensitive to low temperature and could not sustain in cold weather. Further, the species might be removed when the Hong Kong Biodiversity Strategy and Action Plan (BSAP) was to be implemented. The visual barriers from confluence area to the site of the proposed bridge were also considered not sufficient.

### ***Need for the proposed bridge and lightings along the cycle tracks***

8. Members took note that street lights were already provided along Nam Sang Wai Road and Yau Pok Road based on the public lighting design manual in Hong Kong as set by the Highways Department (HyD). Little additional lightings would be constructed along the existing roads, while new ones might be required along the newly constructed cycle tracks, e.g. the Fung Lok Wai section and the proposed bridge at Shan Pui River within the visual barriers. The project proponent team was conscious of the light impact on the nocturnal wildlife and would keep the number of new lightings to the minimum level having regard to HyD's standards.

9. Regarding justification for constructing the proposed bridge, the project proponent team reiterated that the bridge crossing was required to avoid aggregation of visitors at the cul-de-sac of Nam Sang Wai Road. Members' views on the design of the bridge, including reducing the size and the number of piers to be built would be taken on board during the detailed design stage.

### ***Water pollution and waste management***

10. The project proponent team confirmed with Members that the excavated sediments were mainly associated with construction of the proposed bridge at Shan Pui River. The current legislative framework such as adopting the trip ticket system (TTS) would be adopted to keep track of the generation, delivery and disposal of construction waste and to apply mitigation measures for monitoring the level of dust and noise of the construction activities to avoid/contain the impacts during the construction phase.

11. Members were also confirmed that part of the bridge works at Shan Pui River would be carried out during dry season to avoid flood problem as required by the Drainage Services Department (DSD). Other works for the proposed bridge were to be done beyond the peak wintering season from November to March in order to minimize impact to migratory birds. The EIA report had provided information on the construction sequence of different parts of the proposed bridge.

### ***Visual and landscape impacts***

12. Members suggested the project proponent team to consider alternatives to the design and materials for the cycle tracks as the existing ones built with tarmac or concrete gave the impression of a hard landscape. The example of wooden cycle

tracks in Queensland, Australia was cited for using environmentally friendly materials but due regard should be paid to the tropical humid weather in Hong Kong. Use of rubber-recycled asphalt materials and shredded tyres was also suggested as the construction materials. The project proponent team welcomed the suggestions and would study the suggestions with HyD which would be the maintenance department of the cycle tracks.

13. Members were advised that trees of local species and existing trees to be retained would act as visual barriers along Nam Sang Wai Road and Yau Pok Road to enhance the screen-off effect to minimize possible harassment/disturbance to the wildlife arising from increased human activities in the area. Screen boards would also be provided to reduce visual disturbance in areas with record of high density of water birds on mudflats. The boards, some to be covered with creepers, would contain visual slots through which visitors could view the birds foraging the mudflats. Design of the boards would be provided at the detailed design stage. Wetland vegetation would be proposed at the wetland enhancement area.

14. Members repeated the call for the project proponent team to establish the need of the proposed bridge. Should the construction proceed as planned, there should be an overall improvement to the design with regard to its size, weight, engineering implications, foundation and substructures. It was pointed out that the railings would prevent visitors outside from viewing the inside of the bridge, while people inside the bridge would feel like walking inside a cage which would defeat the very purpose of promoting eco-tourism by the cycle tracks. The grid design might also entice visitors to climb up the bridge which would pose safety problems. Questions were also raised if creepers proposed to be grown on the visual screen boards could sustain in the hot dry season without proper watering and maintenance arrangements. They were concerned about the visual impact both in terms of compatibility with the environment and feeling of visitors using the bridge for viewing the surrounding scenery.

### ***Eco-tourism***

15. While Members were advised of the Government's intention to promote eco-tourism along the cycle tracks, they reminded the project proponent team to take into account the carrying capacity of the area, particularly the ecologically sensitive area, when drawing up its promotional strategy. The experience of Hoi Ha was quoted where the Government had to put a halt to all promotional campaigns after influx of visitors which exceeded the anticipated carrying capacity of that area. It was also remarked that it should more be a promotion of nature-based tourism rather

than of eco-tourism.

### ***Cycle track at Yau Pok Road***

16. In response to Members' enquiry on whether the cycle track section at Yau Pok Road could be taken out from the project in view that it was adjacent to the Ramsar Site which was of high ecological value, the project proponent team advised that the section at Yau Pok Road was to tackle the conflicts between cyclists and vehicles for safety concern. In addition, a new cycle track at Pok Wai South Road was in the pipeline, which eventually would be connected with the section at Yau Pok Road to complete the cycle track network in the area. Should the cycle track section at Yau Pok Road be removed from the current project, cyclists from Pok Wai South Road would have to cycle on Yau Pok Road with heavy vehicular traffic. Strong requests from the Yuen Long District Council and Rural Committees had been made for provision of a proper cycle track at Yau Pok Road for safety consideration.

17. Members suggested the safety issue could be tackled by restricting vehicular access to the area rather than developing the road in that part of the area by, for instance, providing control point to restrict vehicular access in Yau Pok Road and requiring general visitors to park their vehicles at the farther end of the road. The road could be turned into a restricted access road same as in country park areas for use by villagers, and thereby cancelled out the possible conflicts with cyclists. The consultant team said that there were difficulties in taking up the proposal as Yau Pok Road was designated a public access road used by nearby villages. The traffic condition at Yau Pok Road would be improved by providing a separate proper cycle track for the cyclists.

### ***Resting stations and public toilets***

18. Members pointed out that the resting stations and public toilets were located right next to areas where the highest density of birds was recorded in the EIA report. The project proponent team explained that normally the facilities would be provided at the end of the cycle tracks to allow cyclists to take rest before their return journey. The resting stations would occupy a small area with only a few bicycle parking spaces, a few seats and a shelter. They confirmed that the cycle track at Yau Pok Road would not extend beyond the existing access road.

19. In response to the suggestion to re-locate the resting stations to the less sensitive areas for avoidance of any possible disturbance to the ecology along Nam Sang Wai Road and Yau Pok Road, the project proponent team explained that the

proposed sites should not bring about much ecological impact to the area. The proposed sites were identified having regard to the existing larger available area on site where felling of trees could be minimized. Information boards would also be put up at various points along the cycle tracks in addition to those placed at the resting stations for education purpose.

### ***Other issues***

20. Members suggested the project proponent team to draw up contingency measures in case human activities in the area were found to be beyond the carrying capacity after the proposed cycle tracks were promoted for use. Certain parts of the existing cycle tracks should be set up as backup sidetracks for diverting cyclists and visitors in case of heavy patronage. Consideration could also be made to close the tracks lying on the ecologically sensitive areas at times of very high visitor load to avoid disturbance to wildlife in the area. This could also provide a leeway for the birds to breed and forage.

### **Issues not adequately addressed by the project proponent team**

21. Members raised the following questions/concerns for the project proponent team to provide further information –

- (a) Justification for the proposed bridge crossing at Shan Pui River had not been fully established. There was an argument that the bridge, when built, would encourage leisure cyclists in Yuen Long and Tin Shui Wai to go to Nam Sang Wai with too much convenience, which in turn would bring untoward disturbance to the area. The present “inconvenience” could be taken as a kind of control mechanism on the flow of cyclists and visitors to the area.
- (b) Members shared the unanimous view that the design of the proposed bridge should be improved in terms of its intended holding capacity and compatibility with the environment. Further assessment was requested on the proposed incorporation of an EVA as a rescue route for ambulances along the whole cycle track network, having regard to the design and operation of the bridge in compliance with the safety regulations required.
- (c) The fishponds proposed for compensation for wetland habitat loss were not a like-to-like comparison, and the project proponent team had to justify that the fishponds after sloping could improve the quality of the habitat for a comparable compensation for the loss of foraging ground.

- (d) Cycle track section at Yau Pok was proposed to be taken out from the present project as it could provide possible refuge for the birds being displaced by increased visitor load at the Nam Sang Wai side of Kam Tin River. Should cycle tracks be developed at both Nam Sang Wai Road and Yau Pok Road, birds would be trapped along the river channel which was undesirable from environmental viewpoint.
- (e) The project proponent team had to provide traffic data about the conflicts between vehicles and cyclists at Yau Pok Road to demonstrate the degree of the conflicts and the need for building the cycle track section for safety consideration. Further, as the cycle track consequently was to complete the cycle track network with Pok Wai Road South, the expected date of completion of the whole cycle track network had to be provided as that might affect the timing for bringing in the cycle track section at Yau Pok Road.

22. The AFCD sit-in officer pointed out that the EIAO Guidance Note provided that it would not be practical and cost effective for the baseline survey to provide exhaustive ecological information. The survey was to provide insight into the ecological function and importance of the habitat in question, and facilitate subsequent impact assessment and mitigation. In essence, there was no ground to reject the methodology adopted in an ecological survey so long as the survey was robust and scientifically sound. He advised that the project proponent team had assessed the ecological impact due to increase in human activities based on weekdays, which was taken the best time where most waterbirds gathered in the area when there should be less human disturbance. The survey was conducted in a qualitative manner which differed from Members' approach for a more quantitative analysis on the expected number of visitors at peak flow. Further, an ecological assessment had been made on the impact of the proposed bridge at Shan Pui River based on the importance of the habitat which they rated as moderate to high, and provided mitigation measures accordingly. Regarding compensation, the AFCD officer explained that any impact due to presence of the bridge could not be mitigated completely from a like-to-like angle, but Members would need to consider whether the residual impacts were acceptable. The project proponent team had recommended mitigation measures such as visual screens to minimize disturbance impacts during operational phase, and provided additional feeding opportunity to waterbirds in the form of compensation wetland. Members had to come up with solid arguments to counter the project proponent team's assessment if they considered the information in the EIA report problematic.

## **Conclusion and Recommendation**

23. After discussion, there were a number of issues that EIASC would request the project proponent team to clarify and address before the Subcommittee could consider whether to recommend to the full Council endorsement of the EIA report. ACE was recommended to consider and endorse the list of questions/concerns from EIASC on the EIA report, and to forward the list to DEP for decision on whether to exercise her authority under the EIAO to require the project proponent team to provide further information having regard to comments received from ACE. If DEP requested the project proponent team to provide further information, the team could take as much time as required to provide the information. The further information could be presented before ACE or EIASC for consideration before formal submission to EPD.

EIA Subcommittee Secretariat

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