

**EIA report on
“Phase III Redevelopment of The Hong Kong Federation of
Youth Groups Jockey Club Sai Kung Outdoor Training Camp”
A summary of issues discussed by the EIA Subcommittee
at the meeting on 15 November 2010**

The Environmental Impact Assessment (EIA) Subcommittee discussed the EIA report on “Phase III Redevelopment of The Hong Kong Federation of Youth Groups (HKFYG) Jockey Club Sai Kung Outdoor Training Camp” at its meeting on 15 November 2010. The issues discussed are summarized below.

Ecological impacts

2. Some Members were concerned about the encroachment of the project into the Sai Kung Country Park, though the footprint was only about 0.44 ha, as it was a dilemma between the need for conservation of country parks and making use of natural resources in country parks for environmental education. On the possibility of further extension of the Camp, the project proponent explained that in view of the popularity of the Camp, HKFYG faced great pressure in turning down large number of applications. HKFYG hoped that the increasing demand from the public could be met by the proposed expansion. In planning the redevelopment, a key principle was to make the best use of the existing resources. For example, the canteen block would be converted to activity rooms without the need of demolition. Environmental education was a core activity in the Camp. The expansion of the Camp could be regarded as an opportunity to make use of the country park to promote environmental education, especially for the young generation. The Phase III scheme would allow doubling the number of bed space and there was no plan at hand for further extension of the Camp after the Phase III scheme.

3. On the anticipated utilization of the Camp with substantial increase of bed space from 236 to 460, the project proponent explained that upon the completion of Phase II scheme in 2001, the utilization rate of the Camp maintained at a very high level and was the highest among all camps in Hong Kong in 2007/08 and 2008/09. The total attendance exceeded 90,000 each year and about 500 applications with some 45,000 potential attendees being turned down due to limited capacity of the Camp. The popularity of the Camp was attributed to its proximity to the natural landscape and diversified indoor and outdoor activities, such as water sports,

adventure-based training and environmental education. With the increasing emphasis of other learning experience under the new school curriculum, applications were on the increasing trend. Applications were also received from other organizations such as non-government organizations for parent-child activities, business firms for staff development training and church groups for retreats. They had confidence that the utilization rate of the Camp would remain at a high level and the expanded facilities would not be wasted.

4. On the scope of campers' activities in the country park area, the project proponent explained that the activity area of the campers would not be confined to the camp site. A wide range of recreational and educational activities, such as hiking, canoeing and orienteering, were organized for campers by making use of the natural resources in the country park and nearby area. It was an effective means to encourage interaction with the nature.

5. Some Members noted that there was no detailed transplantation plan for the protected tree species *Aquilaria sinensis* (Incense Trees) as in the cases of mangrove and woodland compensatory planting. The project proponent explained that three *Aquilaria sinensis* in bigger size would be retained on-site while five smaller ones with less than 0.2 m diameter at breast height (DBH) would be transplanted. A detailed Landscape Plan would be certified by the Environment Team Leader and verified by the Independent Environmental Checker before submitting to the Agriculture, Fisheries and Conservation Department (AFCD).

6. Regarding the availability of a detailed transplantation plan for *Aquilaria sinensis* to enhance survival of the trees, AFCD confirmed that the *Aquilaria sinensis* affected were relatively small in size with 0.13 m to 0.16 m DBH. As stated in the Environmental Monitoring and Audit Manual, the project proponent would have to submit a detailed Landscape Plan before commencement of planting and landscape works of the project. The Landscape Plan would include details of the transplantation programme. Based on experience, the crucial factor for successful transplantation was workmanship and site supervision on the spot.

7. On the rationale of compensating the loss of 232 trees with planting of 150 standard size trees and 125 tree whips, the project proponent explained that 150 was the maximum number of standard size trees that could be accommodated on-site due to limited space. 125 tree whips were proposed for planting on the small piece of land adjacent to the woodland within the camp site. The compensation ratio of having 275 newly planted trees against 232 felled trees was greater than 1:1. In addition, a

site of 0.8 ha at Lui Ta Shek within the Sai Kung Country Park had been identified with the agreement of AFCD for compensatory planting of about 4,000 tree whips for the loss of terrestrial habitats. For this off-site woodland planting, the Landscape Plan would cover two years of maintenance to ensure survival of the plants during the establishment period.

8. Regarding the appropriateness of spacing the 4,000 tree whips at 1.5 m apart, AFCD advised that the compensatory planting at Lui Ta Shek fell within the country park. For planting on hill slopes in country parks, it was a usual practice to plant fast growing seedlings of native species at a distance of about 1.5 m. When the seedlings matured in about five to ten years for forming young woodland, thinning work would be conducted by AFCD to provide a more favourable environment for tree growing. As regards the two-year maintenance of woodland compensatory planting, it was a common practice to adopt a two-year maintenance period to monitor the survival of seedlings and need of replacement planting.

9. On the suitability of having campers to plant mangrove droppers on the sand flat as compensatory mangrove planting, the project proponent explained that experience showed that having campers to plant mangrove droppers was practicable and the survival rate of mangrove was highly satisfactory. The activity could serve as part of environmental education to the young generation. To ensure survival and growth of the newly planted mangrove, monitoring would be carried out on a monthly basis for the first three months and quarterly thereafter for one year.

10. On the source of mangrove droppers, the project proponent explained that the mangrove droppers were sourced from the mangrove site at the downstream area within the camp site. It was observed that the mangrove site was more flourishing than other sites in Sai Kung area which might be due to the use of fresh water during water sports activities in the intertidal area.

11. Some Members noted that studies had been conducted on the enhancement of the bats habitats with increased tree planting in the camp site. More efforts could be made in this area to further enhance the biodiversity of the camp site in order to send a message that the development project with encroachment into the country park would have positive environmental benefits.

Impacts on marine ecology and water quality

12. Regarding the impacts of the project on some fish species listed in the

International Union for Conservation of Nature (IUCN) Red list, the project proponent explained that a total of 35 species were recorded in the stream and estuary of Tai Mong Tsai Stream. Among them, two goby fish species were classified as “Lower risk/near threatened”. All the species of fish recorded in the survey were estuarine fishes with high adaptability to environmental changes. Except the construction of the platform decks, all works were land-based. To prevent potential surface run-off, sand bags would be placed along the periphery of the piling work area. In the unlikely event of accidental surface run-off, it was anticipated that the estuarine fishes would not be affected in view of their high adaptability to turbid waters and sufficient tidal exchange.

13. Regarding the impacts of the project on fish breeding ground in the stream estuarine area, the project proponent explained that potential impacts on the estuarine area would be minimized by avoiding reclamation and marine dredging. No construction works would be undertaken within the estuarine area.

14. Regarding the construction of two platform decks by using minipiling method at the waterfront, the project proponent explained that the two decks for installing minipiles would be elevated above high water mark. The minipiles would be installed by drilling and no dredging would be required. The piles would be connected to a pile cap on which columns would be erected to support the platform decks. The piling works would be scheduled for low tide period. By using minipiling, water circulation in the intertidal area would not be affected and impacts on the water quality would be minimal. The original proposal of building the platform decks by reclamation had been given up due to greater environmental impacts.

15. On the feasibility of constructing the platform decks during dry season to minimize potential impacts on estuarine area, the project proponent explained that the construction of the decks would be scheduled for the late stage in around November 2011 to March 2012 which fell in the winter dry season. They undertook to postpone the construction works of the decks to the next dry season in case of delay in the work schedule.

Waste management

16. Some Members considered that the reuse of treated sewage effluent and composting of kitchen waste on-site were good environmental initiatives. On the capacity of the existing sewage treatment plant (STP) to cope with additional sewage flow under Phase III scheme, the project proponent explained that as only about

one-fifth of the capacity was being utilized at present, the remaining capacity would be able to cope with the additional sewage effluent and part of kitchen wastewater. A new wastewater reuse system with membrane bioreactor (MBR) would be built to treat the rest of kitchen wastewater for flushing and irrigation purposes. The arrangement would enable maximum utilization of the existing STP and minimal development works.

17. On treating kitchen wastewater by MBR, some Members suggested the project proponent to monitor closely the effectiveness of using MBR in removing oil from kitchen wastewater as well as the bacterial level of treated sewage effluent as damage in the membrane module of MBR might lower its disinfection ability.

18. On the possibility of reducing food wastage by campers, the project proponent explained that most of the campers were teenagers and the amount of food wastage was minimal. The Camp management often took the initiative to remind campers, such as those from the commercial sector, not to order food in excess of needs. Some Members suggested the project proponent informing the campers about the weight of their leftovers, if any, and recommending voluntary donation in proportion to the amount of leftover as a means of environmental education.

19. On recycling of beverage containers and other recyclable waste, the project proponent explained that various measures had been taken to encourage the reduction of waste in the camp site, such as reducing the use of water bottles and disposable cutleries. For collection of recyclable waste, they had encountered difficulty in arranging collection of recyclable waste due to remote location of the camp site. Campers were encouraged to bring the recyclable waste for proper disposal outside the camp site.

20. On the transportation of construction materials for the building blocks, the project proponent explained that horizontal transportation of construction materials inside the project site was difficult as there was a lack of construction roads. Cantilever cranes would be used for transporting the construction materials delivered by trucks within the site as in the case of Phase II scheme.

Landscape and visual impacts

21. On the vertical greening to reduce visual impacts of building blocks, the project proponent explained that vertical greening would be achieved by growing climber plants on the nets across the stilts of minipile foundations as the cost of

constructing green walls was very high.

Energy conservation

22. On the possibility of using energy efficient construction materials and electrical appliances, the project proponent explained that research was being actively conducted on the use of renewable or recyclable construction materials for the project, such as materials for floorboards and handrails, as well as the use of energy efficient lighting sources and electrical appliances. Some Members suggested setting a carbon reduction target for the Camp to motivate the staff and campers to achieve the target. Some Members recommended a type of newly invented tile made from used plastic bottles which had higher resistance to heat and was lighter in weight than conventional tiles. Plastic wood made from used plastics was also recommended for construction of platform decks as the material was more durable than wood.

Other issue

23. On the schedule of consultation with the Country and Marine Parks Board, the project proponent explained that their target was to re-submit the proposal to the Board in January 2011 if the Environmental Permit for the project could be obtained in January 2011.

Conclusion

24. After discussion, Members agreed to recommend to the full Council that the EIA report could be endorsed without condition. The meeting also agreed that there was no need to invite the project proponent to attend the full Council meeting.