Annex B

EIA report on "Site Formation and Associated Infrastructural Works for Development of Columbarium, Crematorium and Related Facilities at Sandy Ridge Cemetery"

Summary of issues discussed by the Environmental Impact Assessment Subcommittee at the meeting on 20 May 2016

The Environmental Impact Assessment Subcommittee (EIASC) discussed the EIA report on "Site Formation and Associated Infrastructural Works for Development of Columbarium, Crematorium and Related Facilities at Sandy Ridge Cemetery" at the meeting on 20 May 2016. The issues discussed are summarized below.

The need for and extent of the road widening works

2. Some members enquired on the need for the widening of Sha Ling Road and Lin Ma Hang Road in view of the low traffic flow in the area. The project proponent explained that for the safe operation of double-decker buses, both roads would have to be widened to the standard width of 7.3 metres as specified by the Transport Department (TD). He advised that with an ultimate 200,000 niches provided at Sandy Ridge, it was projected that 240 buses would be passing through Sha Ling Road to the Public Transport Interchange per hour during peak hours.

3. Some members considered widening the road to 7.3 metres excessive. The project proponent explained that they had consulted both TD and the Hong Kong Police Force (HKPF), and considered it necessary to retain an Emergence Vehicular Access (EVA) alongside the one way traffic loop for the operation of shuttle buses during festive periods. Members observed that the Repulse Bay Road used frequently by buses were of a width less than 7.3 metres and suggested Sha Ling Road and Lin Ma Hang Road should be widened to / maintained at 6 metres with the use of passing lane or passing bay when necessary. The project proponent agreed to provide the details and standard drawings of the horizontal and vertical alignments of the existing Sha Ling Road and the new internal road after the meeting. *(Supplementary information is at Appendix I*)

4. To address members' concern on the effectiveness of diverting traffic via Lin Ma Hang Road, the project proponent explained that the North District Council raised their concern over the potential traffic impact created by shuttle buses on the already busy Sheung Shui district. Traffic diversion had therefore been proposed such that shuttle buses from Fanling and Flora Plaza could route through Lin Ma Hang Road to Man Kam To Road on festive days, thereby alleviating the burden on the Sheung Shui transport system. He further advised that HKPF would enforce special traffic arrangements during festive periods to encourage visitors to use public transport.

5. With special traffic arrangements in place, members were of the view that the traffic flow on festive days was even lower than the other days of the year. The need for the widening of Lin Ma Hang Road might not be fully justified. The project proponent explained that some visitors might still visit the Sandy Ridge Cemetery on days other than the festive days, and this would add burden to the existing traffic. He clarified that the proposed widening of the roads was based on the safety consideration of bus operations rather than the increase in traffic flow.

6. Some members considered that any widening of the roads would not only damage the environment, but also lead to segregation effect, and thus it would be unwise and unworthy to widen the roads especially when the shuttle buses only operated on festive days. Members therefore suggested to avoid road widening via using passing bays and passing lanes, and to limit the widening of the EVAs by locating the buildings closer to the main roads.

7. The project proponent explained that based on a visitor flow survey conducted at local cemeteries on festive days, the number of visitors to Sandy Ridge was projected to be 28,000 per hour. He further explained that it was necessary to comply with TD's safety standard requirements, and the Kowloon Motor Bus Company (KMB) also requested for roads of standard width for the safety operation of their buses. According to TD's requirements, passing bays must be provided at 60-metre intervals on roads of substandard widths. With an estimation of 220 shuttle buses using the two-way lanes of Lin Ma Hang Road per hour during festive periods, providing passing bays on the road of substandard width would be highly disruptive to the shuttle bus services.

Ecology

8. Some members observed that according to the EIA report, there were 16 numbers of Golden-headed Cisticola recorded within the project site, and 2 in the assessment area excluding the project site, and opined that there should be measures to compensate for the impact on the species within the project site. With populations of rare freshwater fish *Rhodeus ocellatus* and its associated freshwater mussels discovered in northeast New Territories which was in close proximity to the project site, members asked whether there were any studies conducted specifically on these two species under the project EIA. The project proponent advised that the project team had specifically searched for these two species in the project site but in vain.

9. The project proponent further explained that the project site included the entire area within the EIA Study Brief boundary, whereas the assessment area was defined by a distance of 500 metres from the boundary of the project site. He clarified that a large proportion of the 16 numbers of Golden-headed Cisticola were recorded in the core breeding site which was outside the project boundary, and measures were proposed to mitigate indirect impacts such as fire risks which would threaten the grassland habitats. In response to members' questions on the potential impacts on the Golden-headed Cisticola imposed by the project boundary, the project proponent said that the species typically bred in upland grassland, and moved to the lowlands as a passage migrant during winter. The project boundary avoided the breeding area completely and had only small residual impact on the low numbers of the species recorded outside the breeding area.

10. To address members' concern on the disturbances to the Golden-headed Cisticola and associated mitigation measures during the construction phase and operational phase of the project, the project proponent pointed out that the core breeding site of the species was 280 to 1,500 metres away from the project site. Minimal impact was expected with measures to mitigate the noise impact during the construction phase.

11. The project proponent explained that the Golden-headed Cisticola, being a small bird, was not that disturbance-sensitive. With hill fires being the greatest threat to them, they considered the risks would be mitigated during the construction period by adopting good site practices, strengthening staff

training and displaying educational signage. In reply to a member's question on the direct measures to monitor and conserve the species, the project proponent replied that a grassland reinstatement plan would be proposed to restore part of the lost habitat for the species.

12. The project proponent added that the planting of whips would be regarded as woodland compensation. With over 10,000 whips to be planted within the project boundary, together with 0.6 ha of woodland enhancement planting, the area of compensation would be more than that lost. The project proponent would provide supplementary information on the total area of woodland compensation after the meeting. *(Supplementary information is at Appendix I*)

13. The project proponent further explained that native species would be employed in woodland compensation in consultation with the team ecologists, and compensatory tree planting along roadsides and on slopes were carried out separately from woodland compensation. The project proponent mentioned that due to spatial constraints, restoring woodlands at a 1:1 ratio within the project site would come at a cost of a greater loss in upland grassland which had a higher value than the existing woodlands.

14. The project proponent said that the 0.6 ha of enhanced woodland would be converted from abandoned agricultural land dominated by rank grass which was assessed to be of low value. Incorporating this area into the adjacent wet woodland would lead to an increase in ecological value. Members were of the view that that the area of compensation should be comparable to the area lost. While members agreed that compensation on a 1:1 ratio was not always feasible, the project proponent was requested to identify and quantify area of woodland and upland grassland that were of significant ecological importance such that Members could assess whether the mitigation measures proposed were sufficient to compensate for the loss induced by the project. *(Supplementary information is at Appendix I*)

15. Some members opined that grassland reinstatement on the slopes might not be able to effectively restore the habitats of the Golden-headed Cisticola, as it contributed to increasing fire risks, and considered that the area covered by the grassland reinstatement plan should be reduced. Members further pointed out that the grasslands were maintained by infrequent hill fires

which prevented the succession of grasslands into shrublands and woodlands, hence the over-protection of grasslands from hill fires would in fact damage the habitat of the species.

16. The project proponent agreed that the grasslands were fire-maintained and explained that the mitigation measures aimed at preventing hill fires which would degrade the habitat of the species. He advised that the most recent hill fire covering the breeding area of Golden-headed Cisticola occurred 18 months ago, and an extensive fire preceding it occurred around 5 to 6 years ago. Some members considered it reasonable to assume occasional shifting of the breeding site, which might extend outside the project site. Some members considered that there was a need to devise a plan to monitor and conserve the species.

17. The project proponent explained that the breeding bird survey conducted in the pre-construction phase would extend into the operational phase as part of the Environmental Monitoring and Audit (EM&A) programme.

18. Considering the higher fire risks associated with grasslands, some members suggested planting more trees within the project boundary to replace some of the grasslands instead. Members further requested that better sewage treatment facilities or measures should be considered in order to minimize the amount of pollutants released to the Shenzhen River and Deep Bay which was in close proximity to the project site. The project proponent explained that infrequent fires were essential for preventing vegetation succession of the grasslands and thereby helped maintain the grassland as a suitable breeding habitat for the Golden-headed Cisticola and other species. The project proponent informed that the grassland reinstatement plan was to mitigate the grassland as a habitat for other species as well, such as several rare butterflies. The project proponent advised that sewage from the project site would be discharged along Sha Ling Road and Man Kam To Road to the Shek Wu Hui Sewage Treatment Works.

19. The project proponent said that sufficient educational signage would be displayed throughout the columbarium to remind people of the fire risks and to strictly prohibit practices that could cause hill fires. As these mitigation measures primarily aim at protecting the safety of visitors during the operational phase, any significant impact on the surrounding ecology was not

expected.

Potential impacts on air quality

20. In response to member's suggestion of swapping the two proposed locations of the crematorium and the columbarium to avoid smoke from the crematorium from causing negative impacts on visitors and the ecology of the columbarium, the project proponent explained that as the Crematorium would be of a high emission standard making use of secondary combustion at a high temperature, the amount of air pollutant emitted from the facility would be minimal. The operation of the crematoriums was subject to control under the prevailing licensing system, with EPD and Electrical and Mechanical Services Department (EMSD) performing online monitoring, and FEHD to conducting regular air sampling to ensure compliance with the emission standard.

The need to promote greener transport

21. Some members suggested the promotion of greener option of transport from the Lo Wu Station to the Sandy Ridge Cemetery like walking. The project proponent advised that the project boundary was retreated further away from the Lo Wu Station in order to avoid encroachment into those ecologically important areas; hence visitors would have to take approximately 20 to 30 minutes' walk via Man Kam To Road, inclusive of 30 metres of steep slopes, in order to reach the Sandy Ridge Cemetery. As such, off-site pick-up and drop-off points for shuttle buses were proposed to facilitate easy access to the Sandy Ridge Cemetery. Besides, the limited capacity of the Lo Wu Station would not be able to accommodate the increased numbers of visitors should walking to Sandy Ridge Cemetery become the major mode of transport. Members considered that more efforts should be made to promote walkability, for instance by introducing escalators and liaising with the Mass Transit Railway Corporation Limited (MTR) on the train fare as well as provision of ancillary facilities.

22. With the estimation that the number of visitors to the Columbarium would reach 20,000 per hour, the project proponent said that widening existing footpaths or constructing new footbridges would be required to accommodate for those visitors on foot, which would in turn generate negative impact on the environment.

23. To ease the traffic flow, a few members suggested introducing different modes of transport for the visitors. The project proponent advised that on top of diverting shuttle buses via two routes, the project team was also exploring the feasibility of performing crowd control measures so as to prevent too many people from visiting Sandy Ridge Cemetery at the same time. Based on the statistics collected, the project proponent observed that there was an increasing age trend among the visitors; hence it was reasonable to assume that a number of visitors might not choose or be able to take the walking option.

The reuse of construction and demolition materials

24. To facilitate the reuse of the excavated material generated from the construction work, the project proponent advised that the inert construction and demolition (C&D) materials for offsite use would be shipped via the Siu Lam Barging Point to sites of concurrent projects including Tung Chung and the third runway of the Hong Kong International Airport (HKIA). Some members suggested the project proponent to consider backups in case the construction works of the two projects could not commence on time.

The need to avoid damages to the water course

25. In response to members' suggestion using precast method for the construction of the viaduct connecting the Crematorium to Man Kam To Road, the project proponent explained that as the viaduct would be curved, every piece of mould had to be custom-made. The project proponent added that footings of the falseworks for temporal support of the construction works of the proposed viaduct would be designed to avoid encroachment on the watercourse. Some members suggested the project proponent to explore the precast method option as it could fully avoid damages to the watercourse. A member suggested the use of non-concrete structure such as steel, so that it could span across the watercourse.

The need for the installation of noise barriers

26. Given that the shuttle buses would only operate during festival periods, some members were of the view that it might not be worthy to install

absorptive noise barriers which was costly and might affect air ventilation. There were also risks of bird collision associated with the installation. The project proponent explained that priority should be given to address noise impacts at source according to the EIAO. While the use of noise barriers had already been minimized with the employment of low noise road surfacing materials whenever possible, some degree of noise barrier installation was inevitable as many village houses were in close proximity to Man Kam To Road, Sha Ling Road and Lin Ma Hang Road.

27. A member further suggested introducing electric buses of minimal noise level, which was already a technologically-viable option fully employed in the Mainland China. The project proponent explained that the bus companies were yet to commit to the use of electric buses, but agreed to further review the feasibility of the proposed option.

28. The EIA Subcommittee deliberated the captioned EIA report and recommended the full Council to endorse the EIA report with 4 conditions and 5 recommendations.

EIA Subcommittee Secretariat
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