

**Confirmed Minutes of the 132nd Meeting of
the Environmental Impact Assessment Subcommittee
held on 20 May 2016 at 2:00 pm**

Present:

Prof Nora TAM, BBS, JP (Chairperson)
Dr HUNG Wing-tat, MH (Deputy Chairman)
Ir Cary CHAN
Prof CHAU Kwai-cheong, BBS, JP
Dr Billy HAU
Dr Michael LAU
Ir MA Lee-tak, SBS
Miss Yolanda NG, MH
Dr Eric TSANG
Ms Becky LAM (Secretary)

Absent with Apologies:

Prof Albert LEE
Prof John NG
Mr Luther WONG

In Attendance:

Mr K F TANG	Assistant Director (Environmental Assessment), EPD
Mr Simon CHAN	Assistant Director (Conservation), Agriculture, Fisheries and Conservation Department (AFCD)
Miss Dora CHU	Executive Officer (CBD), EPD
Mr Alan CHUNG	Executive Manager (CBD), EPD

In Attendance for Item 2:

Mr Terence TSANG	Principal Environmental Protection Officer (Strategic Assessment), EPD
Mr Steve LI	Senior Environmental Protection Officer (Strategic Assessment)6, EPD
Mr CHEUNG Kwok-wai	Senior Nature Conservation Officer (North), AFCD
Mr LIU Ka-yip, Eric	Nature Conservation Officer (North), AFCD

Project Proponent Team

*Civil Engineering and
Development Department*

Mr WOO Tai-on, Gabriel, Chief Engineer/Land Works
Mr LAU Chun-tat, Senior Engineer/4
Ms IU Wai-yin, Wendy, Engineer/43

Food and Environmental

Ms Viola YIM, Superintendent (Cemeteries &

Hygiene Department

Crematoria) Special Duties

Ove Arup & Partners Hong Kong Ltd

Mr Davis LEE, Project Manager
Mr Alex WANG, Deputy Project Manager
Mr Edward LEUNG, Landscape Architect
Mr Ray TANG, Associate (Traffic and Transport)
Mr Franki CHIU, Director (Environmental)
Dr Elvis LAU, Consultant (Environmental)
Miss Audrey KWOK, Assistant Consultant (Environmental)
Mr Paul LEADER, Ecologist

In Attendance for Item 3:

Mr Raymond WONG

Principal Environmental Protection Officer (Regional West), EPD

Mr Louis CHAN

Principal Environmental Protection Officer (Regional Assessment), EPD

Mr Dick CHOI

Senior Marine Conservation Officer (West), AFCD

Project Proponent

Airport Authority Hong Kong (AAHK)

Mr Kevin POOLE, Executive Director, Third Runway
Mr Lawrence TSUI, Senior Manager, Environment, Third Runway
Mr Martin PUTNAM, Senior Manager, Environment, Third Runway
Mr James TSUI, General Manager, Corporate Communications
Mr K H Siu, Senior Manager, Public Affairs

Mott MacDonald Hong Kong Ltd.
AECOM

Mr Eric CHING, Divisional Director
Ms Julia CHAN, Principal Environmental Consultant
Mr Jackel LAW, Associate, Environment, Hong Kong

Action

Item 1 : Matters arising from the minutes of the 131st meeting

The Chairperson informed that the Environmental Impact Assessment Subcommittee (EIASC) last met in January 2016 to discuss the EIA report on “Tung Chung New Town Extension”. The minutes of meeting were confirmed via paper circulation on 4 March 2016 and had been uploaded onto the website of the Advisory Council on the Environment (ACE). Information on the approval of the concerned EIA report and the relevant Environmental Permit was circulated to all ACE Members on 14 April 2016.

2. There was no matter arising from the minutes of the last meeting.

Item 2 : EIA Report on “Site Formation and Associated Infrastructural Works for Development of Columbarium, Crematorium and Related Facilities at Sandy Ridge Cemetery”

(ACE-EIA Paper 2/2016)

Internal Discussion Session

3. The Chairperson advised that the meeting would discuss the EIA report on “Site Formation and Associated Infrastructural Works for Development of Columbarium, Crematorium and Related Facilities at Sandy Ridge Cemetery” which was a designated project under “Schedule 2” of the EIA Ordinance. The public inspection period of the report was starting from 5 April to 4 May 2016. The public comments received by EPD and the gist of major issues/concerns had been circulated to Members before the meeting. Written responses from the project proponent (i.e. the Civil Engineering and Development Department (CEDD)) on the public comments and concerns raised by Members had also been circulated to Member before the meeting.

4. The Chairperson informed that the discussion would be divided into the Presentation and Question-and-Answer Session which would be opened to the public while the Internal Discussion Session would remain closed.

5. The Chairperson invited declaration of interest from Members. A Member, being a member of WWF, advised that WWF had submitted comments to EPD on the EIA report. The Chairperson also declared that one of her ancestors was buried at Sandy Ridge Cemetery. The meeting agreed that the Member could stay on and continue participating in the discussion, and the Chairperson could stay on to chair the meeting.

6. The Chairperson reminded Members to keep confidentiality of the discussion on the EIA report.

[The project proponent team joined the meeting at this juncture.]

Presentation Session (Open Session)

7. Mr Gabriel Woo gave an overview of the background and need for the project. Mr Franki Chiu briefed Members on the environmental aspects of the site formation and associated infrastructural works proposed at Sandy Ridge Cemetery, key comments received from the public and responses to these public comments.

Question-and-Answer Session (Open Session)

The need for and extent of the road widening works

8. Mr Gabriel Woo briefed Members that as the project site was located along a spur line, cut and fill works would be involved for the widening of Sha Ling Road as well as construction of a platform for the proposed pick-up/drop-off area (PDA). According to the latest design, the columbarium buildings would be in the form of a few rectangular blocks surrounding the PDA and would be constructed on the slopes in order to minimize the extent of cut and fill works within the project site. Sha Ling Road would be the major vehicular access to the columbarium buildings, and two emergency vehicular accesses (EVAs) had to be provided for accessing the columbarium buildings in compliance with the Code of Practice for Fire Safety. In reply to a Member's request for the details and drawings of the horizontal and vertical alignments of the existing Sha Ling Road and the new internal road, as well as a copy of the Code of Practice for Fire Safety, the project proponent agreed to provide the information after the meeting. CEDD CEDD

9. A Member opined that the widening of Sha Ling Road and Lin Ma Hang Road could not be justified with low traffic flow in the area. Mr Gabriel Woo explained that for the safe operation of double-decker buses, both roads would have to be widened to a width of 7.3 metres according to the current standard adopted by the Transport Department (TD). Mr Ray Tang added that with ultimately 200,000 niches in use, it was projected that 230 buses (one-way) would be passing through Sha Ling Road to the PDA during the peak hour on festive days. Based on the fact that a standard local road would carry a maximum flow of 1,200 passenger car unit (pcu) per hour, the Member considered widening Sha Ling Road to 7.3 metres excessive. Mr Tang explained that with the consultation of both the Transport Department (TD) and the Hong Kong Police Force (HKPF), it was considered necessary to retain an emergency access alongside the one way traffic loop for the operation of special buses during festive periods. The Member drew members' attention to the Repulse Bay Road which were frequented by buses were of a width less than 7.3 metres and suggested Sha Ling Road and Lin Ma Hang Road to be widened to / maintained at 6 metres with the use of passing lane or passing bay when necessary.

10. In response to a Member's concern on the effectiveness of diverting traffic via Lin Ma Hang Road, Mr Ray Tang explained that the North District Council raised their concerns over the potential traffic impact created by special buses in the already busy Sheung Shui district. Traffic diversion had therefore been proposed such that special buses from Fanling and Flora Plaza could route through Liantang / Heung Yuen Wai connection road and Lin Ma Hang Road to Man Kam To Road during festive periods, thereby alleviating the burden on the traffic in the Sheung Shui district. He advised that HKPF would enforce special

traffic arrangements during festive periods at Sandy Ridge Cemetery and grave sweepers would be encouraged to use public transport. Mr Ray Tang anticipated that there would be around 110 and 120 buses (one-way) per hour accessing Sandy Ridge Cemetery via the Lin Ma Hang Road and the Sheung Shui district respectively when the 200,000 niches of the columbarium at Sandy Ridge were in use.

11. A Member pointed out that with special traffic arrangements; the traffic flow on festive days was even lower than the other days of the year. As such, he was of the view that the widening of Lin Ma Hang Road was not fully justified. Mr Ray Tang explained that some visitors might still visit the Sandy Ridge Cemetery on normal days other than the festive days, and this would add to the existing commuter traffic. Mr Davis Lee clarified that the proposed widening of the roads was based on the safety consideration of bus operations rather than the increase in traffic flow. The Member said that as buses were only 2.53-metre wide, roads of 6 metres would be more than sufficient to cater for two-way traffic flow. He 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 special buses only operated on festive days. He suggested to avoid road widening by using passing bays and passing lanes, and to limit the extent of the EVAs by locating the buildings closer to Sha Ling Road.

12. A Member echoed another Member's views and sought information on the basis of estimation on number of visitors as projected in the report. Mr Ray Tang said that based on a visitor flow survey conducted at other cemeteries during festive periods, the number of visitors to Sandy Ridge Cemetery was projected to be 28,000 per hour when ultimately 200,000 niches were in use. 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 safe operation of 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 special buses (two-way) using Lin Ma Hang Road per hour during festive periods, which was much higher than that of Repulse Bay Road, providing road of substandard width with passing bays would be highly disruptive to the special bus services.

Ecology

13. A Member drew Members' attention to Table 9.3 in the EIA report, which showed that 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. He further sought clarifications from the project proponent on the proposal to providing woodland enhancement planting of only 0.6 ha, which was half of the 1.2 ha of woodland lost to the project, and whether

compensatory tree planting was separate from woodland enhancement planting. With populations of the rare freshwater fish namely *Rhodeus ocellatus* and its associated freshwater mussels discovered in northeast New Territories which was in close proximity to the project site, the Member asked whether there were any studies conducted specifically on these two species under the project EIA.

14. Mr Paul Leader 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. Mr Cheung Kwok-wai supplemented that while baseline surveys covered the entire project site, the project proponent had revised the footprints and boundary of the project based on the survey results to minimize the impacts on the bird species. In response to a Member and the Chairperson's questions on the potential impacts on the Golden-headed Cisticola imposed by the project boundary, Mr Leader said that the species typically bred in upland grassland, and moved to the lowlands as a passage migrant during winter. The project boundary had avoided the breeding area completely and had only small residual impact on the low numbers of the species recorded outside the breeding area.

15. To address the concern of a Member on the disturbances to the Golden-headed Cisticola and associated mitigation measures during the construction phase and operational phase of the project, Mr Franki Chiu pointed out that the core breeding site of the species was 280 to 1500 metres away from the project site. Minimal impact was expected with measures to mitigate the noise impact during the construction phase. Mr Paul Leader explained that the Golden-headed Cisticola, being a small bird, was not that disturbance-sensitive. With hill fires being the greatest threat to them, he considered the risks would be mitigated during the construction period by adopting good site practices, strengthening staff training and displaying educational signage. Regarding the Member's concern on the direct measures to monitor and conserve the species, Mr Leader replied that while the primary measure taken would be on avoidance basis, a grassland reinstatement plan would be proposed to restore part of the lost habitat for the species.

16. Following a Member's observation that the area of woodland enhancement planting was less than the area lost under the project, the Chairperson pointed out that the area of grassland reinstatement would also be significantly less than that the lost as part of the work for the columbarium. Mr Edward Leung explained 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 0.6 ha of woodland

enhancement planting was highlighted to demonstrate that it was in close proximity to the lost woodland of 1 ha within the project boundary. Mr Leung agreed to provide supplementary information on the total area of woodland compensation after the meeting. The Member pointed out that landscape planting and woodland compensation usually involved differences, including the gradient of planting locations, selection of species, cultivation method etc. Mr Leung explained that native species would be employed in woodland compensation in consultation with the ecologists, and compensatory tree planting along roadsides and on slopes would be carried out separately from woodland compensation. Mr Paul Leader 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 ecological value than the existing woodlands. Under such circumstances, the Member agreed that converting landscape planting areas into native woodlands was acceptable via devising a special replanting plan with the principles of maximizing every patch of the compensation area and introducing a variety of species.

CEDD

17. Mr Cheung Kwok-wai advised that the area and species list for compensation would be determined in accordance with the ecological value rather than the area loss. Compensation measures were usually not required for the restoration of grasslands as most of them were of a low ecological value. With the grassland within the project boundary being part of the habitat for the Golden-headed Cisticola, the proposed measures were aimed to mitigate the impact to the species rather than to restore the grasslands at a 1:1 ratio. He further explained that most woodlands lost were scattered and of a low value, and those of a low to moderate value on the slopes could be compensated by landscape planting. Mr Paul Leader 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. A Member was of the view that that the area of compensation should be comparable to the area lost. Mr Cheung explained that mitigation measures were typically required when a project imposed significant impact on the environment, and under such circumstances, the value compensated must be comparable or even higher than the value lost. While the Chairperson agreed that compensation on a 1:1 ratio was not always feasible, she considered that the area of woodland and upland grassland that were of significant ecological importance should be identified and quantified such that Members could assess whether the mitigation measures proposed were sufficient to compensate for the loss induced by the project.

CEDD

18. A Member 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. He considered that the area covered by the grassland reinstatement plan should be reduced. Another Member 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. Mr Paul Leader 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. In view of the mosaic of grassland habitats and that affected areas of grasslands would require time to restore from the damage done by a hill fire; the Member considered it reasonable to assume occasional shifting of the breeding site, which might extend outside the project site. As such a dynamic pattern could not be shown in the baseline study which was conducted over a short period of time, he considered that there was a need to devise a plan to monitor and conserve the species. Mr Leader explained that hill fires were usually extensive and there was no evidence to suggest partial burns. With reference to the survey results, he believed that the distribution of Golden-headed Cisticola could be explained by their preference for grasslands of a higher altitude along the ridgeline. The Member considered that such uncertainties might suggest the need to monitor and conserve the species as a mitigation measure for the project. Mr Leader admitted that there were knowledge gaps in the wider distribution and wider ecological requirements of species as it was known to breed in Hong Kong only in recent years, and supplemented that the breeding bird survey would be conducted in the pre-construction and post-construction phases as part of the Environmental Monitoring and Audit (EM&A) programme.

19. In response to a Member's earlier question concerning *Rhodeus ocellatus* and the associated freshwater mussel, Mr Paul Leader said that the project team had specifically searched for these two species in the project site but in vain.

20. Considering the higher fire risks associated with grasslands, a Member suggested planting more trees within the project boundary to replace some of the grasslands instead. He further mentioned 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. Mr Paul Leader 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. He advised that restoring woodlands at a 1:1 or higher ratio would come at a cost of losing habitats of higher value than the existing woodlands. In reply to the Member's question on whether grassland on a steeper slope would be less desirable for the Golden-headed Cisticola, Mr Leader admitted that the effectiveness of grass reinstatement plan was yet to know for the species. He however pointed out that the aim of the plan was to mitigate the grassland as a habitat for other species as

well, such as several rare butterflies. As regard the sewage treatment, Mr Gabriel Woo 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.

21. A Member requested for detailed information on grassland maintenance which was not available in the EM&A manual. With measures in place to mitigate the fire risks, he opined that it was important to monitor any succession of the fire-maintained grassland and to take follow up actions as necessary. Mr Paul Leader advised that as detailed in the EM&A manual, when the action level of 30% reduction in species diversity was reached, an investigation on the cause of the reduction would be conducted. Implementation of additional mitigation measures, such as wide-spread clearance of shrubland, would be considered should there be any further reduction in species diversity. He advised that with the mitigation measures aimed at preventing the frequency of hill fires, irregular burnings would still occur.

22. Ms Viola Yim said that sufficient educational signage would be displayed throughout the Sandy Ridge Cemetery to remind people of the fire risks and to strictly prohibit practices that could cause hill fires. While there would be regular patrolling throughout the year, control would be strengthened during festive periods. As these mitigation measures primarily aim at protecting the safety of visitors and cemetery properties during the operational phase, any significant impact on the surrounding ecology was not expected. A Member opined that as hill fires could start from the graves of nearby walled villages which fell outside the management of the Food and Environmental Hygiene Department (FEHD), there should be measures in force to prevent these fires from spreading into the cemetery.

Potential Impacts on Air Quality

23. A Member suggested swapping the two proposed locations of the crematorium and the columbarium to avoid smoke from the crematorium from causing negative impacts to visitors and the ecology of the columbarium. Mr Gabriel Woo explained that as the Crematorium would be of a high emission standard, the amount of air pollutant emitted from the facility would be minimal. The positioning of the facilities was considered to be suitable at this stage and would be further reviewed during the detailed study stage. Using the Diamond Hill Crematorium as an example, which was of less than 200 metres from Fu Shan Estate, he considered that the Crematorium at Sandy Ridge would have insignificant impact with the nearest residence being at least 400 metres away. Ms Viola Yim supplemented that there were currently 6 crematoriums managed by FEHD, of which 5 of them were located in the urban area in vicinity to residential areas. As crematoriums were classified as designated projects under the EIAO, the future crematorium had to go through the EIA

process and an environmental permit would be required for its construction and operation. The operation of the crematoriums was also subject to control under the prevailing licensing system, with EPD and Electrical and Mechanical Services Department (EMSD) performing online monitoring, and FEHD conducting regular air sampling to ensure compliance with the emission standard.

The need to promote greener transport

24. A Member suggested the promotion of greener option of transport from the Mass Transit Railway (MTR) Lo Wu Station to the Sandy Ridge Cemetery like walking. Mr Ray Tang advised that the project boundary was retreated further away from the MTR Lo Wu Station in order to avoid encroachment into ecologically important areas; hence visitors would have to take approximately 50 minutes' walk via Man Kam To Road, inclusive of a steep road of 30-metre difference in altitude, in order to reach the columbarium at the Sandy Ridge Cemetery. As such, off-site pick-up and drop-off points for special buses were proposed to facilitate easy access to the Sandy Ridge Cemetery. He considered the costly train fare for travelling from Sheung Shui to MTR Lo Wu Station and the long walking distance would possibly deter visitors from opting to walk to Sandy Ridge Cemetery from the MTR Lo Wu Station, especially when off-site special bus services were available. Besides, the limited capacity of the existing MTR Lo Wu Station and footpath at Lo Wu Station Road would not be able to accommodate the increased numbers of visitors should walking to Sandy Ridge Cemetery become the major mode of transport. Given that the Government placed great emphasis on building a low-carbon city, the Member considered that more efforts should be made to promote walkability, for instance by introducing escalators and liaising with the MTR Corporation Limited on the train fare as well as provision of ancillary facilities. Mr Davis Lee pointed out that a fare concession scheme would have to be committed by the MTR Corporation Limited, otherwise, it would cost more for visitors to walk than to use the special bus services. With the estimation that the number of visitors to the Columbarium would reach 28,000 per hour, Mr Tang said that extensive improvement works on the existing infrastructure would be required and this might impose negative impacts on the environment.

25. In reply to a Member's enquiry regarding the one-way traffic loop, Mr Ray Tang explained that for the sake of safety considerations, the special bus services were recommended to operate in one way loop via Sha Ling Road and the proposed viaduct to facilitate traffic management and crowd control during festive periods.

26. To ease the traffic flow, the Chairperson suggested introducing different modes of transport for the visitors, including walking. Mr Ray Tang advised that on top of diverting special 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. However, the option of walking was considered to be undesirable with the explanations given earlier. Based on the statistics collected, Mr Gabriel Woo added that there was an aging 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. Regarding the type of bus to be used, Mr Tang said that bus companies were not ready to commit to using single-decker buses as more buses would be required and the operation of the bus services would be less effective. A Member also pointed out that single and double-decker buses had the same widths, the use of different types of buses should not be an important factor in affecting the decision on road widening.

The reuse of construction and demolition materials

27. To facilitate the reuse of the excavated material generated from the construction work, Mr Franki Chiu replied that about 164,810 m³ of 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 New Town Extension and the third runway of the Hong Kong International Airport (HKIA). A Member suggested the project proponent to consider backups in case the construction works of the two projects could not commence on time. Mr Gabriel Woo replied that other concurrent projects would also be considered and temporary fill banks would serve as a last resort.

The need to avoid damages to the water course

28. In response to a Member's suggestion using precast method for the construction of the viaduct connecting the Crematorium to Man Kam To Road, Mr Alex Wang explained that as the viaduct would be curved, every piece of mould had to be custom-made. Mr Franki Chiu added that footings of the falseworks for temporary support of the construction works of the proposed viaduct would be designed to avoid encroachment on the watercourse. The Member said that encroachment by the footings could only be minimized but not completely prevented and pointed out that the precast method would still be feasible. He suggested the project proponent to explore the precast method option as it could fully avoid damages to the watercourse. Another Member suggested the use of non-concrete structure such as steel, so that it could more readily span across the watercourse. Mr Davis Lee agreed to review and consider alternative construction methods by comparing the time and cost required.

The need for the installation of noise barriers

29. A Member pointed out that traffic noise coming from special buses could be the primary source of noise impact during the operational phase of the

project. Given that the special buses would only operate during festive periods, he opined that it might not be worthy to install absorptive noise barriers which was costly and might affect air ventilation with some of the barriers up to 4 metres tall. There were also risks of bird collision associated with the installation. He would rather suggest subsidizing the installation of double-glazing windows at affected noise sensitive receivers (NSRs). Mr Franki Chiu 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. He said that even if these village houses were installed with double-glazed windows, they could still be affected when the windows were open. The Member was of the view that affected residents and other noise sensitive receivers (NSRs) should be provided with the option to receiving compensation and subsidy for installing double-glazing windows.

30. A Member further suggested introducing electric buses of minimal noise level, which was already a technologically-viable option fully employed in the Mainland China. Mr Davis Lee explained that the bus companies had shown reluctance in committing to the deployment of electric buses at this stage, but he agreed to further review the feasibility of the proposed option.

31. There being no further questions from Members, the Chairperson thanked the project proponent team for their presentation and clarification on the project, and asked them to provide the supplementary information as requested by Members during the discussion.

[The project proponent team and a Member left the meeting at this juncture.]

[Post meeting note: The project proponent provided the supplementary information which was circulated to Members on 26 May 2016.]

Internal Discussion Session

32. The Chairperson advised that the EIA Subcommittee could make recommendations to ACE on the EIA report with the following approach:

- (i) endorse the EIA report without condition; or
- (ii) endorse the EIA report with conditions and details of the proposed conditions; or
- (iii) defer the decision to the full Council for further consideration – highlight issues or reasons for not reaching a consensus or issues to be further considered by the full Council; or
- (iv) reject the EIA report and inform the project proponent if the right to go to the full Council.

33. A Member agreed that the EIA was conducted in accordance with the EIAO and the EIA study brief. However, he could not find it reasonable that Lin Ma Hang Road should be widened to meet TD's requirement instead of actual operational need. With many substandard roads in Hong Kong, he considered that it would be unwise to set a precedence of road widening to meet the standard requirement. Another Member echoed the view of the Member that apart from road safety and fire safety considerations, environmental impact considerations should also be accounted for in the project design.

34. Mr K F Tang advised that Members should focus on the significance of the adverse environmental impacts brought about by widening Sha Ling Road and Lin Ma Hang Road, and whether the proposed mitigation measures were adequate for meeting the EIAO requirements. If the adverse environmental impacts were too significant to be alleviated by suitable mitigation measures, the project proponent should be requested to consider alternative designs, such as provision of passing bays, to minimize impact to the environment without compromising the function and purpose of the roads in question. This would require involving other concerned government departments such as TD to explain the situation to Members and enable Members to make informed recommendations. In this connection, Mr Tang invited AFCD to give their views on the significance of the environmental impacts related to the road widening works. Mr Cheung Kwok-wai said that the land use along Lin Ma Hang Road was mainly warehouses, agricultural lands and village houses and there were no species of ecological significance found in the area. As for the widening of Sha Ling Road which involved cut and fill slopes, there would be loss of secondary woodland of low to moderate value that have been mitigated by the measures proposed in the EIA report. He said that the project proponent could further liaise with TD on the road width and whether it was possible to provide pedestrian walkway on only one side of the roads.

35. A Member pointed out that the widening of Lin Ma Hang Road would involve the removal of a number of large trees, which might in turn lead to higher temperatures in surrounding areas. He was of the view that the widening of roads to 7.3-metre was acceptable only in areas that would not require the removal of trees.

36. A Member suggested and the Chairperson agreed that the meeting should first come up with a list of conditions and recommendations, and the project proponent would be invited to attend the full Council meeting should they have any disagreement with the proposed conditions.

37. The Chairperson proposed and Members agreed to restrict the widening of Sha Ling Road to 6-metre wide in consideration of the associated environmental impacts and the one-way traffic loop arrangement. As the

project proponent team had reservations on promoting the option of walking for visitors, the Chairperson suggested and Members agreed to propose, as one of the conditions to restrict the provision of pedestrian walkway on one side of the roads only.

38. A Member said that visitors should be encouraged to travel to the Sandy Ridge Cemetery on foot. The Chairperson said that the existing pedestrian walkway along Lo Wu Station Road was narrow and could not support a large number of visitors on foot, and the originally planned pedestrian walkway connecting MTR Lo Wu Station to the Sandy Ridge Cemetery had been cancelled due to the shifting of the project boundary away from the MTR Lo Wu Station. A Member said that the carriageway of MTR Lo Wu Station Road could be closed under special traffic arrangement on festive days so as to facilitate visitors on foot. He mentioned that the similar arrangements had been adopted by many cemeteries during festive periods.

39. The Chairperson proposed and Members supported to include a recommendation to request the project proponent to explore effective measures to promote the walkability and to encourage visitors to travel to Sandy Ridge Cemetery on foot. The Chairperson also suggested recommending the project proponent to consider the use of electric buses.

40. A Member proposed to impose a condition to request the project proponent to use alternative methods of design and construction of the viaduct such that any impact on the watercourse could be completely avoided. Another Member suggested that the viaduct should span across the watercourse, and that no structures, both temporary and permanent, would impact on the watercourse. In response to the Chairperson's concern on whether the costs would be prohibitively high, a Member echoed another Member's earlier suggestion that steel structure which was of a lower cost could be explored.

41. While the use of noise barriers was in accordance with EIAO's requirement of addressing noise impact at source, Mr K F Tang agreed that the project proponent could still consider adopting alternative or refined mitigation measures that would suit the affected residents better. He however expressed concern towards a Member's suggestion of subsidizing the installation of double-glazed windows in village houses, which was not a control-at-source measure, and might lead to disputes on the maintenance costs, electricity costs of the increased operation of air-conditioners etc. The Chairperson proposed and Members supported to recommend the project proponent to minimize the use of visually intrusive noise barriers by considering alternative methods such using electric buses and deploying low noise road surfacing materials wherever practicable.

42. Having noted that there would be less C&D materials as the widening of Lin Ma Hang Road and Sha Ling Road had been restricted to 6-metre wide,

The Chairperson proposed and Members agreed to include a recommendation to request the project proponent to reuse C&D materials generated from the project as far as possible. Alternative concurrent projects other than the proposed sites at Tung Chung and the third runway of the Hong Kong International Airport should be identified and explored for the reuse of excavation materials.

43. A Member suggested that there should be a study to assess the importance of the breeding site to Golden-headed Cisticola and to determine whether there was a need to introduce extended measures for the conservation of the species. Mr Cheung Kwok-wai pointed out that Members should reject the EIA report if they considered there were insufficient evidence to support the conclusions and proposals made in the EIA report. He advised that it would be difficult to monitor the study and to ask the project proponent to take follow up actions. Should Members find the EIA report acceptable but with some uncertainties, the project proponent could be required to set up a monitoring programme and carry out breeding site enhancement measures. Mr K F Tang advised that a baseline study would be conducted before the commencement of the construction work as part of the EM&A programme. The results and findings of the baseline study would form the basis for the project proponent to consider whether it would be necessary to take a precautionary approach and adopt additional enhancement measures to address any potential negative impacts.

44. A Member said that as the Golden-headed Cisticola had only started to breed in Hong Kong in recent years, there was little knowledge on the breeding requirement of this species in Hong Kong. While the species was also known to breed in other upland grassland habitats in Hong Kong, he agreed that monitoring was necessary as the distribution of the species could change from time to time. He opined that an action plan should be devised to follow up on any significant changes in the population of the species at Sandy Ridge. The Chairperson proposed and Members supported to impose a condition to request the project proponent to devise a Monitoring and Survey Plan for the Golden-headed Cisticola as part of the EM&A programme, which should include an Action Plan in response to any irregularities identified. As suggested by the Chairperson, Mr Cheung Kwok-wai agreed that the Action Plan should be submitted to the Director of AFCD for approval.

45. In reply to the Chairperson's enquiry regarding the woodland enhancement plan, Mr Cheung Kwok-wai advised that the 0.6 ha did not include the wet woodland which was adjacent to the 0.2 ha of the proposed enhanced woodland in the valley below MacIntosh Fort. Native tree species would also be planted in an area of approximately 0.4 ha on the filled slope west of the columbarium platform. He stressed that this was proposed as an enhancement rather than a compensatory measure. A Member drew Members' attention to the EM&A manual in which the term "Compensatory Woodland

Planting” was used. Mr Cheung clarified that compensatory measures must be conducted in accordance with the “like-for-like” principle, and AFCDD had accepted woodland planting to be conducted as an enhancement measure after several rounds of communication and clarification with the project proponent.

46. A Member was concerned that accepting an enhancement area smaller than the area lost would set a bad precedent for all future projects, and suggested to address this matter separately in an EIASC or ACE meeting. He opined that it was ineffective to count the number of trees or whips to be planted with no regard to whether a canopy could be formed. In this context, he suggested that the project proponent should be required to devise a woodland compensatory/enhancement plan and to set a target for the canopy coverage formation. While considering that most of the EIA reports that were discussed by the EIASC had proposed compensation of woodland of 1:1 or above ratio, the Chairperson was concerned that the project proponent might not be able to secure a greater area for enhancement due to spatial constraints. A Member pointed out that with one of the conditions to restrict road widening, the loss of woodland might become less than 1.2 ha. He suggested that if the woodland loss was still greater than the area covered by the Enhancement Woodland Proposal, off-site compensation was acceptable. Following a Member’s earlier comment, the Chairperson agreed that it would be undesirable to set a precedent to allow no compensation for habitat loss even if it had a low ecological value. Mr Cheung Kwok-wai said that the aim of EIA was to assess the detailed environmental impact caused by a project, and thereby identify significant impacts that had to be mitigated or compensated by the project proponent. While compensation at a 1:1 ratio was not always necessary and feasible, he suggested and the Chairperson agreed that the project proponent could be further requested to increase the area of landscape planting to mitigate for the woodland loss. While there was no guidance note that provided objective criteria for the assessment of the value of woodlands in terms of size, shape, age etc., a Member commented that natural secondary woodland with predominantly native trees was usually accorded higher value in EIA, but it was not the case for this project.

47. The Chairperson proposed and Members supported the imposition of a condition to request the project proponent to identify and quantify the area of woodland loss with moderate or high ecological value and to explore the possibility of additional landscape planting with the view of providing compensatory woodland planting at least at 1:1 ratio.

48. On the Chairperson’s invitation for comments concerning the Grassland Reinstatement Plan, a Member opined that such a plan was not necessary given that the remaining grassland provided sufficient habitat and the proposed reinstatement area was surrounded by the columbarium buildings and other associated facilities which would reduce its function as a habitat. He suggested and another Member agreed to recommend the project proponent to

conduct hydro-seeding on the cut slopes and to re-deploy the resources of performing grass reinstatement to increasing woodland compensation instead. The Chairperson suggested and Members supported to recommend the project proponent to review the need and effectiveness of the proposed Grassland Reinstatement Plan.

49. Members considered that there was no need to include a condition or recommendation concerning fire risks. With no further comments from Members, the Chairperson concluded that Members had the general consensus to endorse the subject EIA report with a list of conditions and recommendations.

[Post meeting note: The list of proposed conditions and recommendations were circulated to Members for comments on 26 May 2016.]

50. The meeting agreed that the project proponent team would not be required to attend the full Council meeting on the report if they agreed with all of the conditions. Otherwise, the project proponent would be invited to make further justifications against the condition(s) they disagree with at the full Council meeting.

[Post meeting note: A Member left the meeting at this juncture.]

Item 3 : Any other business

Follow-up on the Marine Travel Routes and Management Plan for High Speed Ferries of SkyPier

51. The Chairperson informed that in view of Members' concern towards the alleged deviations from the Marine Travel Routes and Management Plan for High Speed Ferries of SkyPier (the Plan) as reported by the MingPao on 13 May 2016, the Airport Authority Hong Kong (AAHK) had been invited to give an account on the incident to Members. Representatives from EPD and AFCD had also been invited to join the meeting.

[Representatives from AAHK, EPD and AFCD joined the meeting at this juncture.]

52. Mr Kevin Poole informed that AAHK planned to report to ACE in September 2016 on the review of effectiveness of the Plan after six months' implementation, and was pleased to have the opportunity to explain to Members on the recent reports on deviations from the Plan made by MingPao.

53. Mr Eric Ching recapped the background of the Plan and the implementation steps taken by AAHK to ensure compliance, which included signing a supplementary agreement with the ferry operators on navigation restrictions. He briefed Members that vessel movements were monitored in real

time by the Automatic Identification System (AIS). A notice would be issued immediately to request the concerned ferry operator to provide explanation for any deviation, which would then be assessed and audited by the environmental team (ET) and independent environmental checker (IEC) so as to determine if follow-up or precautionary measures should be taken. He explained that in compliance with relevant international conventions and local regulations and requirements of the Marine Department, occasional navigation route or instantaneous speed limit deviations from the targets set out in the Plan were sometimes inevitable for navigation safety and public safety. With reference to the duration of ferry movements throughout the speed controlled zone (SCZ) in April 2016, it should be noted that all vessel movements complied with the speed limit, except for a few records of instantaneous speed over 15 knots which accounted for only 0.3% of the total navigation time. Mr Ching informed that even so, the ferry operators were required to provide explanations for every instance involving speed exceeding 15 knots. Over the past three months, there was only one incident where a ferry travelled at an average speed of 15.8 knots in order to avoid smaller vessels on and near the navigation route. The ET had investigated into the cause and taken precautionary measures to avoid similar incidents in future. He stressed that AAHK was committed to implementing all the requirements set out in the SkyPier Plan, and would continue to liaise with the ferry operators on the implementation details to ensure that the Plan would be properly followed.

54. A Member thanked AAHK for the detailed explanations. In reply to the Member's enquiry on the media's source of information and whether any clarifications were made by AAHK to the media, Mr Lawrence Tsui said that the monitoring data in the monthly EM&A reports were uploaded to a dedicated website. Mr James Tsui added that AAHK had received media enquiry before the publication of the news article on 13 May 2016, and part of AAHK's response was quoted on the article. Considering that the monitoring data quoted in the news article were partial and biased, the Member advised AAHK to clarify to the media promptly and to prevent similar misunderstandings in the future. Mr K F Tang supplemented that instead of focusing on the average speed which in general complied with the requirements, the media had chosen to report on the incidence of instantaneous speed deviating from the requirement without regard to the reasons behind. The Member suggested and Mr James Tsui agreed that in future, the full responses or clarifications relating to environmental aspects made by AAHK to the media should be passed to Members once available so as to keep Members informed of the situation.

55. In reply to the Chairperson's enquiry concerning the accuracy of the duration required for ferries to travel through SCZ as computed in MingPao's report, i.e. 5 minutes, Mr Eric Ching said that the approximate duration for ferries to travel through the SCZ of 2.4 nautical miles should be 9.6 minutes instead. The Chairperson also requested AAHK to clarify on such discrepancies to prevent misunderstandings by the public and ACE Members.

56. With the understanding that the 200 speeding cases as reported by MingPao included every data point of instantaneous speeding, and a data point was taken every few seconds, a Member sought information on the numbers of ferry movements deviating from the requirements. Mr Lawrence Tsui replied that while the number of ferry movements with instantaneous speeding in February, March and April were 51, 35 and 20 respectively out of 2,400 in the past three months, all movements, except for only one case, took longer than 9.6 minutes to travel through the SCZ. He advised that AAHK had investigated all the instantaneous speeding incidents and confirmed that they were all related to navigation safety.

57. A Member said that whether a ferry was speeding or not should be based on its average speed rather than the instantaneous speed, as instantaneous speeding could occur due to safety considerations and changes in water currents. In reply to the Member's suggestion that AAHK should include also deviations from the requirements in terms of average speed in their EM&A reports, Mr Lawrence Tsui explained that the information was presented as prevailing speed in the reports and there was only one deviation recorded in the past three months. A Member was concerned that the instantaneous speeding would increase the noise impact and collision risks to Chinese White Dolphins (CWDs). As the rationale behind imposing a speed restriction was to minimize the disturbances to CWDs, significant instantaneous speed deviations from 15 knots should not be accepted. Mr Eric Ching explained that AAHK would investigate the causes of all instantaneous speeding cases regardless of the extent and the prevailing speed. He, however, pointed out that marine navigation was different from road traffic as there were different factors affecting navigation safety including ocean currents and existence of other vessels.

58. With the observation that many of the ferries travelled at around 10 knots, a Member further enquired the reason for not setting the speed restriction at 10 knots which was deemed to be infeasible by AAHK in the earlier Council meetings. Mr Eric Ching explained that the ferries would have to travel at a speed 3 to 4 knots below the speed limit on average in order to comply with the speed limit at every instant, and there were safety concerns associated with ferries operating at 6 to 7 knots on average should the speed limit be set at 10 knots.

59. In reply to a Member's enquiry on the time required for investigating instantaneous speeding cases, Mr Eric Ching advised that the monitoring system detected deviations at real time and issued notice to the ferry operators on deviations immediately. The ET and IEC would assess and audit each case based on the monitoring data and justifications provided by the ferry operators. Mr Lawrence Tsui supplemented that while ferry operators were given 10 days to provide explanations, they in general responded shortly after the issuance of

the notice. The Member suggested and Mr Tsui agreed to consider shortening the time allowed for the ferry operators to provide their response on deviations so that AAHK could respond to media and public enquiries in a more efficient manner.

60. On a Member's suggestion to analyze the monitoring data so as to identify repeated deviations from the requirements by individual captains, Mr Lawrence Tsui explained that the ferry operators would provide the name of the captain for every deviation, and there was no clear trend of deviations by one particular captain so far.

61. A Member quoted Dr Samuel Hung's comment from the MingPao article concerning the significantly reduced numbers of CWDs in Sha Chau and Lung Kwu Chau Marine Park (SCLKCMP) and invited AFCD to brief Members on the situation. Mr Dick Choi advised that data collection by AFCD was still on-going and detailed analysis on the dolphin usage of SCLKCMP in 2016 had not yet been conducted. The comment of Dr Samuel Hung was presumably based on the results of the dolphin monitoring conducted under the Hong Kong - Zhuhai - Macao Bridge projects, which were made available on the internet by the project proponents and the accuracy of the results was yet to be analyzed.

62. There being no other comments from Members, the Chairperson thanked the representatives of AAHK, EPD and AFCD for their clarifications, and expressed her hope that there would not be occurrences of similar incidents in the future.

[Post meeting note: The representatives of AAHK left the meeting at this juncture.]

63. The Chairperson suggested and Members agreed that AAHK would not have to attend the full Council meeting as they have already provided clear explanations to Members. A Member would report to the full Council meeting on the items discussed during the EIASC meeting on behalf of the Chairperson and the Vice-chairman who would be out of town.

64. A Member enquired if AAHK should report to ACE on the review of effectiveness of the SkyPier Plan after six months' implementation at the full Council meeting in June 2016. Mr K F Tang replied that as time was required for data collation, AAHK would make the report to ACE in September 2016. With reference to the Member's question concerning CWD activity at SCLKCMP, Mr Tang understood from AAHK that dolphin activity had been detected in the area. As the survey had not been concluded yet, AAHK considered that it was premature to release the data at this stage. He further expressed his agreement with another Member's comment that AAHK should publicize its views or clarifications as soon as possible when facing criticisms

from the media, and to maintain a high degree of transparency of the data collected under EM&A. AAHK in liaison with EPD would also make an effort to inform ACE Members of any responses made by EPD and AAHK to media reports or enquiries in a timely manner. A Member stressed that this was a sensitive issue that should be addressed promptly to prevent any aggravation. The Chairperson suggested AAHK to make reference to practice of organizations such as CLP Power Hong Kong Limited and the Consumer Council on publicizing their views on the internet as soon as controversies occurred.

65. On a Member's suggestion to shorten the time allowed for ferry operators to provide a response to deviation cases, Mr Louis Chan said that most ferry operators could in fact obtain an immediate feedback from captains and provide a prompt reply to AAHK. Mr K F Tang recapped that AAHK would consider to shorten the response time from ferry operators.

Item 4 : Date of next meeting

66. The Chairperson informed that no EIA reports were received for discussion at the June and July meetings. Members would be advised on the date of the next meeting and the agenda in due course.

**EIA Subcommittee Secretariat
May 2016**