

**EIA report on  
“Pilot Project for Public-Private Partnership Conservation Scheme  
at Sha Lo Tung Valley, Tai Po”**

**A summary of issues discussed by the EIA Subcommittee  
at the meeting on 25 June 2012**

The Environmental Impact Assessment (EIA) Subcommittee discussed the EIA report on “Pilot Project for Public-Private Partnership Conservation Scheme at Sha Lo Tung Valley, Tai Po” at its meeting on 25 June 2012. The sit-in officials of EPD and AFCD had offered clarifications on the following issues before the presentation by the project proponent.

***Policy background***

(A) EIA process

2. The discussions over the need of Public-Private Partnership Conservation Scheme at Sha Lo Tung (SLT) and the project proponent’s choice of building the columbarium complex were not under the ambit of deliberation by ACE. Under the EIA mechanism, focus of examining the EIA report was to assess the project’s environmental acceptability in compliance with the provisions of the EIA Ordinance (EIAO) and the Technical Memorandum on EIA Process (TM). In the case of the SLT project, the EIA authority had yet to make its decision on the report. Subsequent to the passage of the EIA process, the project proponent still had to go through other relevant statutory processes, e.g. town planning and amendments of outline zoning plan, etc., before they could commence the project.

(B) New Nature Conservation Policy (NNCP)

3. The Government promulgated NNCP in 2004 to identify practicable ways for better achieving the nature conservation objectives, and in particular, to enhance conservation of the ecologically important sites which were in private ownership. Under NNCP, 12 priority sites including SLT Valley had been identified for enhanced conservation. Under the Public-Private Partnership (PPP) Pilot Scheme of NNCP, development of an agreed scale would be allowed at the ecologically less sensitive portion of a priority site, provided that the project proponent undertook to conserve and manage the rest of the site that was ecologically more sensitive on a long-term basis. In the case of SLT, the project proponent had undertaken to inject a lump sum into a Government Statutory Fund (i.e. the Environment and Conservation Fund (ECF)) which would generate recurrent revenue sufficient for the long-term management of the ecologically more sensitive portion of the site. They would also be required to identify competent bodies (e.g. green groups) as their conservation agents to manage the ecologically sensitive portion of the concerned site. The conservation agents should apply for funding support from ECF for carrying out the conservation project. Willingness of the project proponent to initiate conserving and developing the priority site in a sustainable manner was essential for the successful implementation of the PPP Pilot Scheme.

### ***Completeness/accuracy of the ecological survey in the EIA report***

4. Ecological survey(s) in EIA studies generally covered the major taxa groups, the biology and distribution of which were more well-studied, documented and understood. The EIA would also cover some unusual species if the study area was known to support them. For SLT, the site was known for its streams and wetlands which were important habitats for dragonflies and *Macropodus hongkongensis* (香港鬥魚), whereas the issue of fireflies had not been raised in the previous two rounds of public consultation under the statutory EIA process. Furthermore, the ecological value of SLT Valley was fully recognized and a Conservation Management Plan (CMP) was recommended in the EIA study to conserve the site. The recent report of fireflies in SLT Valley from the public comments would help reaffirm the ecological importance of the area. Findings and conclusion of the present EIA study nonetheless should continue be held valid.

### ***Compliance with NNCP and PPP Pilot Scheme***

5. Under the PPP Pilot Scheme, the development should be located at the ecologically less sensitive portion of the priority site so as to maximize the conservation gain. There was no prerequisite that the development portion must be wholly within the priority site. In the case of SLT, 96% of the private land within the Valley was owned by the project proponent and the site consisted largely of ecologically sensitive land. Instead of restricting the development to within the boundary of the priority site, the development was proposed to be located at the ecologically less sensitive part of the priority site and the adjacent area so as to minimize any potential ecological impacts. A reasonable degree of flexibility should be allowed in the proposal without compromising the principles of NNCP.

### ***Ecological changes in the SLT area***

6. AFCDD has been undertaking ecological monitoring to SLT Valley since it was listed a priority site in 2004. As the site was largely under private ownership, the Government could not institute specific active measures to manage/conservate the area. In the past years, ecological damage due to hill fires and human disturbances such as war games and use of four-wheel drive vehicles had occurred. *Mikania micrantha* and other invasive species had colonized large patches of land. The high ecological value of SLT Valley would inevitably change and deteriorate over time without active management inputs. The PPP Pilot Scheme was taken to be an effective measure for enhanced conservation of the site.

### ***Land use at the SLT area***

7. Some of the land use zoning for the SLT OZP are Village Type Development zone (“V” zone) and “Agricultural” zone in which building village houses and farming were allowed. Under the development proposal, the project proponent was to set up an Ecological Reserve for long-term conservation of the entire SLT Valley. They had reached an agreement with village representatives to dedicate all relevant land lots for conservation instead of building village houses. Should any land arrangement involving government

land is to be involved in the project, the Government would consider the issue in accordance with the prevailing application procedures, and the approved land arrangement would be subject to restrictions as stipulated in the land lease conditions and relevant details, including payment on a land premium as assessed by the Government. Any allegations of “transfer of benefits” between the Government and the project proponent were unsubstantiated. Further, the development plan, in case of passage of the EIA process, would still have to fulfil the statutory requirements including application for land arrangements or application for planning permission in accordance with the Town Planning Ordinance (TPO).

8. Members agreed that since the Subcommittee already had long and detailed discussions of the EIA report on the SLT project in the past years, the last one being held in April 2011, the discussion should focus on the key revisions made in the report. The issues discussed were summarized below.

### *Design of the project*

#### Number of niches in the columbarium complex

9. There would be four buildings in the columbarium complex with a maximum of 60 000 niches, as compared with five buildings as proposed in the previous submission. On the possibility of reducing the project scale, the project proponent claimed that the number of niches was determined by the financial package having regard to the various costs and expenditure items including conservation, improvement works to SLT Road and their extensive building entitlement and agricultural land holdings and related costs, to be balanced against the expected revenue generated from the sale of niches. The scale of development had yet to be approved by the Town Planning Board (TPB).

#### Visual impacts

10. The building design was revised with the planned excavation of an underground level to give an additional storey for each of the four buildings while the building height viz. the visual impact would remain unchanged. The overall landscape master plan and individual structure works would be subject to amendment in case the project was approved to proceed to detailed design. The total Gross Floor Area for columbarium use would largely be the same as in the previous submission. The current proposal was considered an improvement in terms of the physical location of the columbarium complex for improving the visual impacts by cutting down one building and by keeping the blocks at the downside of the knoll.

11. As there was concern that the columbarium would attract more visitors and bring about inevitable human disturbances to the area, the project proponent had recommended arrangements such as use of electric vehicles and crowd control. As the daily number of visitors to the columbarium complex during festival days would be limited to 7 400, the environmental impact on human disturbances was considered acceptable. The mitigation measures had been covered in the EIA report.

### ***Ecological impacts, conduct of ecological surveys and benchmarking***

12. In response to public's objections to the project that fireflies and Three-banded Box Terrapin had not been covered in the EIA report, the project proponent explained that they had conducted a comprehensive ecological survey in the area for 26 months in accordance with the requirements of the study brief and the TM. Fireflies were identified in the study area but not included in the EIA report as it was not required in the study brief and also in view of the limited information available on them. They also clarified that the survey did cover Three-banded Box Terrapin, a species of high conservation value. Their potential habitats in SLT Valley had been proposed to be conserved in the Ecological Reserve. Both the turtles and the fireflies would be included as the target species for conservation in the future CMP.

13. In respect of the possible approaches in maintaining/transforming the abandoned agricultural land in SLT, the project proponent explained that where there was natural succession/colonization of plants, they would assess the impact on the fauna/flora and carry out maintenance (for those vegetation having a positive impact on the habitat) or removal (as in the case of invasive species like *Mikania micrantha*) as appropriate. When drawing up the detailed CMP, they would conduct a thorough study on the topography and hydrology of the area, research on the eco-systems and study their inter-linkages, and propose appropriate plant mix and habitat management to maintain/restore the area to the optimal habitat for organisms living therein in a progressive manner.

14. In answering public's concern that the EIA report did not cover the southern seasonal stream that flowed through the Development Site, and thereby omitted the species and eco-systems therein in the ecological assessment, the project proponent stated that they had conducted a thorough ecological survey on the area and found that the species composition was dominated by ferns, shrubs and isolated trees, which were typical features of shrubland grassland mosaic habitat. Some other species adapted to moist environment were also found but they were localized and only in few numbers. Puddles of water were found in rainy season due to the flat topography of the area, but there was no continuous flow of surface stream. Based on the species composition and structure of the habitat, it was considered more appropriate that the site be categorized as "shrubland grassland mosaic".

15. On the question over the possible impacts caused by soil nailing to underlying vegetation, the project proponent said that the area that might require soil nailing was very limited. Works would be localized and carefully planned to avoid any unnecessary tree felling. It would mainly affect the understory vegetation of secondary woodland but would not lead to habitat loss.

16. The project proponent informed that they did not have a detailed analysis on the changes of ecological status of SLT Valley in terms of wildlife data or composition and plant species over time. They clarified that major differences in ecological value could not be detected unless a specially designed and detailed survey was conducted over 5 to 10 years' time. Changes to the area in general had been noted since 2004 such as the damage caused by hill fires and other human disturbances.

17. In response to the enquiry about the benchmarks to be adopted for evaluating the outcome of the CMP, the project proponent advised that while they at present did not have the year-on-year comparison of baseline data collected in SLT Valley, they had maintained a long-term accumulated baseline database. The preliminary CMP provided in the EIA report was only an outline of the principles and framework of the plan. They would continue monitoring the different taxa groups and submit a detailed CMP comprising a more in-depth ecological survey to AFCD for endorsement before commencement of the project.

### ***Water quality impact***

18. On the enquiry about measures for mitigating the adverse impacts on water quality brought by the development to the Ecological Reserve, the project proponent informed that the key measures included interception of the surface runoff from the Development Site, so as to avoid any contamination of SLT Stream. They would also build tightly-sealed hoardings along the Development Site so as to prevent any silty runoff.

19. With regard to the treatment of waste water and the concern that untreated water might seep and contaminate the Site of Special Scientific Interest (SSSI), the project proponent informed that the major source of sewage would come from human excrement and other domestic use. They would build a separate water-tight sewage system to convey the sewage along the improved SLT Road to the Tai Po sewage treatment plant directly. Apart from installation of standby pumps, they would build a storage tank with a capacity which could cater for sewage generated by visitors for two to three days during festival days for contingency in the event of failure of all pumps. They would not anticipate any problem of overflow of waste water to SSSI. Regarding natural surface runoff, fertilizers and pesticides would not be allowed for use in SLT Valley. No chemicals would be flushed down to SLT Stream.

20. On the question over whether the interception of natural surface runoff would result in the reduction in water supply downstream, which in turn would affect the eco-systems therein, the project proponent replied that they had looked at occurrence spectrums of storm events from one in two years to one in two hundred years, and assessed that the net reduction in the volume of fresh water entering SLT Stream would only be 3% at most. The change in the volume of water flow would only be insignificant.

21. Regarding water supply to the abandoned agricultural land to the north of the Development Site, the project proponent informed that the water was supplied from two separate sources of surface runoff, one from the natural drainage path which would be affected by the development (but the flow would largely be maintained after construction), and the other from the highland area to the east which would not be affected by the project. They assessed that the impact caused by the development to the water supply in the abandoned agricultural land would be insignificant. Nevertheless, they could introduce a system to divert water to the abandoned agricultural land when drawing up the surface drainage plan if deemed necessary.

22. In reply to the enquiry on the hydrology of the Development Site, the project proponent said that they had detected water seepage in the secondary woodland, details of

which had been covered in the EIA report. As the development did not involve extensive footing or deep excavation, they would not consider that the water table would be affected.

### ***Design of SLT Road improvement works***

23. In view that some 300 trees along SLT Road would be felled as a result of the road widening works, a compensatory plan would be instituted whereby three trees would be re-planted for every tree to be felled. Local species and some species from southern China rather than exotic species would be recommended for the re-planting programme. The canopy of the remaining trees would be considered sufficient for the required shading along the road. In view that some of the plant species to be removed were of conservation value, the project proponent would undertake a detailed vegetation survey during the design stage to confirm plant species of conservation interest that would be affected by the project. These trees would be avoided through careful planning of the road works, or by transplanting where appropriate.

24. In answering the enquiries on the possibility of reducing the width of 4.5m for SLT Road, the project proponent explained that the road at present was a public road of 3m to 3.5m wide. It had to be upgraded to a public road of a prescribed standard to provide safe access to the Ecological Reserve under the project. The 4.5m width now proposed was a minimum requirement imposed by Transport Department (TD) for a single track access (one lane for two ways). The proposed road improvement works were already kept to the minimum possible according to TD road standard. They added that the Ecological Reserve, Development Site and improvement works to SLT Road were inter-linked in the development plan under the PPP Pilot Scheme.

25. In response to public's concern on the loss of large piece of greenery as a result of the road improvement works, the project proponent explained that there was some misunderstanding in the calculation. They clarified that the actual affected area would only include a habitat loss of secondary woodland of about 0.2 ha, a plantation area of 0.43 ha, shrubland grassland mosaic of 0.65 ha and a developed area of around 1.08 ha.

26. On the question over whether the project would bring about adverse impacts on the butterfly reserve Fung Yuen nearby, the project proponent said that they would set up a Butterfly Enhancement Zone to enhance the butterfly communities in the whole SLT Valley, covering Fung Yuen. With regard to the concern over the impacts of the SLT Road widening works on Fung Yuen, they confirmed that only a limited area of woodland and plantation would be affected, and there would be no direct impacts on the Fung Yuen Valley SSSI.

### ***Air quality impact***

27. As regards the enquiry on the possibility of taking out shuttle bus service from the development plan and thereby encouraging visitors to get to the columbarium on foot, for the benefits of hikers as air sensitive receivers along SLT Road, the project proponent said that the shuttle bus service could serve as a tool for crowd control to achieve better management of the whole area. SLT Road should also be maintained available for

emergency vehicular access. Besides, it was expected that hikers very likely would avoid SLT Road during the festival days. The impacts on hikers should be minimal.

### *Scale of development*

28. In response to the enquiry over the possibility of further reducing the scale of development of the columbarium and ancillary facilities, the project proponent said that they had cut down the scale of the project in order to minimize the impact to the environment to acceptable level under the EIAO. That included reducing the number of columbarium blocks from five to four and the total footprint areas. On the other hand, due consideration had to be given for them to generate sufficient revenue from the sale of niches to sustain conservation management in the long run. They considered it more appropriate to leave the matter to TPB which was the approving authority in that regard.

29. With regards the suggestion of a land swap with the Government, the project proponent said that they would keep an open mind and would be willing to consider a site outside SLT Valley for the development, provided that the revenue so generated could prove sufficient to cover the costs of the project.

30. The project proponent stressed that while they were ready to discuss further on the number of columbarium blocks to be built, it inevitably would lead to more excavation of the underground levels in exchange. They considered that the current design should prove the optimal option.

31. The following issues were raised and clarified by the sit-in officials of EPD and AFCD after the project proponent completed their presentation/briefing and left the meeting –

#### *(I) Water quality and ecological impacts*

32. Concerns were raised on the following water quality and ecological issues –

- (a) Adequacy of baseline ecological survey(s) on the Ecological Reserve to serve as the basis of the CMP;
- (b) CMP measures to ensure the eco-systems and biodiversity of the Ecological Reserve be properly maintained/protected; and
- (c) Construction works in the water catchment area of the Development Site that might disturb the natural stream systems.

33. Clarifications were made that the EIA authority had sought advice and inputs from relevant departments when deciding on the scope of the study brief before the project proponent prepared the EIA report. The present EIA report had already incorporated the necessary updated baseline ecological data on the project as required in the study brief. The report was considered to have met the requirements under the EIAO and the TM before it was opened up for public inspection and submission to ACE under the statutory EIAO process. If the report was subsequently approved by the EIA and other relevant authorities for the proponent to proceed with the project, they would have to update the information

and carry out detailed design of the habitat management measures and nature conservation plan on the basis of the baseline information contained in the report.

34. In respect of water quality in the catchment area, Members were confirmed that less than 3% of the water flow of the natural stream systems might be affected, in the event of exceptional heavy rainfall as stated in the EIA report. No significant adverse impacts on the habitats were expected in face of the planned water diversion works.

(II) Impacts over SLT Road improvement works

35. Members were confirmed that SLT Road was to be upgraded to a 4.5m single track two-way access road to meet the requirements of TD for providing safe public access to the Ecological Reserve and other facilities in the Valley. The works design would endeavour minimizing disturbance to the existing landscape and impacts to the environment along the road. No encroachment would be made to Pat Sin Leng Country Park. Members were advised that even in the absence of the project, with the “V” zoning within SLT Valley, the villagers might apply to the Home Affairs Department for funding of the road works under the Local Improvement Works scheme.

(III) Questions over completeness/accuracy of the EIA report and any breach of the TM under the EIA process, and whether the SLT project was in compliance with NNCP

36. Opportunity was taken to clarify the issues which some members of the public might have on the project and the EIA report –

- (a) The EIA report was considered to have met the requirements of the study brief and the TM and was suitable for public inspection. The report was exhibited for public inspection from 21 May to 19 June 2012. DEP would have to consider whether the EIA report had addressed relevant environmental issues raised by the public and ACE before making a decision on whether or not to approve the EIA report. The process had been open, transparent and fair;
- (b) The project was in compliance with the spirit of the PPP Pilot Scheme under NNCP in that –
  - (i) developments at an agreed scale would be allowed at the ecologically less sensitive portion of SLT Valley provided that the project proponent undertook to conserve and manage the ecologically more sensitive portion on a long-term basis;
  - (ii) development was proposed to be located at the ecologically less sensitive part of SLT Valley and the adjacent area so as to minimize any potential ecological impacts from the proposed development;
  - (iii) there would be no development at locations with high ecological value in SLT Valley; and
  - (iv) the SLT project still had to go through the requisite statutory town planning process under the TPO and relevant land approval process if applicable, and to meet respective requirements and application procedures. Any land arrangement, if approved, would be subject to restrictions as stipulated in the

land lease conditions and other relevant details, including payment on a land premium as assessed by the Administration. Until now, Lands Department (in its capacity as the landlord) had not received any relevant application;

and

- (c) ACE was now invited to consider the report under the statutory EIAO process, having reference to views from members of the public received by EPD, and to make recommendations to DEP. DEP would consider the views from the public and ACE, as well as the requirements of the EIAO, TM and study brief before making a decision on either approving or rejecting the EIA report.

### **Conclusion**

37. After detailed discussion, the Subcommittee agreed to recommend to the full Council that the EIA report could be endorsed with conditions. It had also made a number of recommendations on the report. The Subcommittee agreed that there was no need to invite the project proponent to attend the full Council meeting unless there were unanticipated developments on the project during the interim period.

**EIA Subcommittee Secretariat  
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