Confirmed Minutes of the 100th Meeting of the Environmental Impact Assessment Subcommittee held on 17 December 2007 at 3:00 pm

Present:

Dr NG Cho-nam, BBS (Chairman)
Mr TSANG Kam-lam (Deputy Chairman)
Dr Dorothy CHAN, BBS
Ms Betty HO
Prof Paul LAM
Mr Edwin LAU
Mr Simon WONG
Dr YAU Wing-kwong
Prof LAM Kin-che, SBS, JP (ACE Chairman and non-EIASC Member)
Ms Josephine CHEUNG (Secretary)

Absent with Apologies:

Dr MAN Chi-sum, JP
Prof POON Chi-sun

In Attendance:

Mr Simon HUI	Acting Assistant Director (Environmental Assessment), Environmental Protection Department (EPD)
Mr C C LAY	Assistant Director (Conservation), Agriculture, Fisheries and Conservation Department (AFCD)
Mr KWAN Chung-kit	Office Manager (CBD), EPD
Miss Sarah NG	Executive Officer (CBD), EPD

In Attendance for Agenda Item 3:

Mr Maurice YEUNG	Principal Environmental Protection Officer (Assessment and Noise), EPD
Mr KH TO	Senior Environmental Officer (Assessment and Noise)5, EPD
Mr Alan CHAN	Senior Marine Conservation Officer (East), AFCD
Mr Richard CHAN	Senior Nature Conservation Officer (Central), AFCD
Dr Maria YOUNG	Nature Conservation Officer (Tai Po), AFCD
Mr LAU Wing-lai	Chief Engineer/Port Works, Civil Engineering and Development Department (CEDD)
Mr WONG Chi-pan Ricky	Senior Engineer/Projects 1, CEDD
Mr WONG Chi-yung	Assistant Engineer/Projects 1, CEDD

Mr Peter KAN	Chief Executive Officer (Planning)2, Leisure and Cultural Services Department (LCSD)
Mr Alfred CHOW	Chief Leisure Manager (New Territories East), LCSD
Mr MAK Chi-chai	District Leisure Manager (Tai Po), LCSD
Mr Wilson LUI	Senior Executive Officer (Planning)7, LCSD
Mr LAM Hang-shing	Senior Architect, Architectural Services Department
Mr Billy LAW	Architect, Architectural Services Department
Dr Andrew JACKSON	Managing Director, Environment Resources Management – Hong Kong Limited (ERM)
Mr Terence FONG	Senior Consultant, ERM
Mr Scott LANG	Senior Consultant, ERM
Ms Aimee LAU	Consultant, ERM
Mr Peter SHEK	Project Manager, Halcrow China Limited
Ms Connie CHOW	Engineer, Halcrow China Limited

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Action

Agenda Item 1: Confirmation of the Draft Minutes of the 99th Meeting held on 19 November 2007

The draft minutes of the last meeting were confirmed without amendments.

Agenda Item 2: Matters Arising from the Minutes of the 99th Meeting held on 19 November 2007

2. There were no matters arising from the minutes of the last meeting.

Agenda Item 3: Development of a Bathing Beach at Lung Mei, Tai Po
(ACE-EIA Paper 10/2007)

Internal Discussion Session

3. The Chairman informed Members that agenda item 3 will be divided into the following four sessions –

(a) Internal Discussion Session
(b) Presentation Session
(c) Question-and-Answer Session

(d) Internal discussion Session

The Presentation Session and Question-and Answer Session would be opened to the public. Internal Discussion Session of agenda item 3 and all other sessions of the meeting will remain closed.

4. The Chairman informed Members that the public inspection period of the EIA report on "Development of a bathing beach at Tai Po, Lung Mei" was from 23 November to 22 December 2007. Up to the date of the meeting, the Environmental Protection Department (EPD) received ten sets of public comments. Three sets were circulated to Members before the meeting and seven sets were tabled at the meeting for Members' reference. Separately, two sets of comments directly addressed to the Council were tabled at the meeting for Members' information.

5. Members agreed that the discussion should focus on the justifications for the project, site selection, scale of the project, water quality impacts, impacts arising from changes in hydrodynamics due to the project, sustainability of the artificial beach, ecological study and traffic impact assessment.

(The project proponent team joined the meeting at this juncture.)

Presentation Session

6. Mr Lau Wing-lai briefed Members on the background and purpose of the project. Mr Terence Fong briefed Members on the findings of the EIA study.

Question-and-Answer Session

Justifications for the project

7. A Member enquired about the need for a gazetted beach in Tai Po. Mr Peter Kan explained that the project proposed by the former Regional Council was to meet the public demand for a gazetted public beach in the east region of the New Territories. There was at present no gazetted beach in the east region of the New Territories, except those in the Sai Kung District which was relatively far away from the Tai Po District. The Tai Po District Council strongly requested the

development of a bathing beach at Lung Mei. The Legislative Council Members also requested the Government to accord priority to the project. The proposal was to carry out improvement works at the existing Lung Mei Beach in order to improve the sand surface and enhance the beach area as a gazetted beach for public bathing and other recreational activities. The Lung Mei Beach was near Tai Mei Tuk which was a popular leisure and recreational area with established facilities for holiday makers. The proposed improvement of the existing beach with the provision of standardized facilities of a gazetted beach would complement the existing leisure and recreational facilities in Tai Mei Tuk area.

8. A Member asked whether consideration was given to developing a bathing beach in areas outside Tai Po (such as Pak Shek Kok in Shatin). Mr Peter Kan said that the site selection was focused in the Tai Po area as no request was received from other District Councils. For Pak Shek Kok, there was a long promenade near the Science Park stretching from Tai Po to Shatin providing a leisure and recreational area with sea frontage.

9. The Chairman expressed the concern that the project might set a precedent for other districts to request for an artificial beach. Mr Peter Kan highlighted that the Lung Mei Beach was an existing sandy beach patronized by local residents and tourists. To meet the increasing community demand, the proposal was to enhance the existing beach area and provide facilities up to the standard of a gazetted beach for protection of beach users. The Leisure and Cultural Services Department (LCSD) was prepared to consider other similar requests for enhancing beaches having regard to the existence of public demand and technical considerations.

10. A Member considered that there was a lack of gazetted beach in the east region of the New Territories for the population of about 1 million, the proposed beach development with minimal environmental impacts would be beneficial to the community as a whole.

Site selection

11. On a Member's enquiry about the site selection process, Mr Terence Fong explained that a number of considerations had to be taken into account, including the size of the site for developing a beach of 200 m long; a sheltered bay

with a gentle slope and soft bottom (preferably sand but not too muddy) and not subject to major wave actions; a site away from industrial areas, existing navigation channel and environmental sensitive areas; and proximity to developed infrastructure. All potential sites located within Tai Po District, including Plover Cove, Tolo Channel, Long Harbour and Hoi Ha Wan, were considered. To avoid impacts on the environmental sensitive areas, any potential bathing beach sites located very close to the Country Park, Marine Park, Site of Special Scientific Interest (SSSI), Special Area, Coastal Protection Area and identified key mangrove habitat had been eliminated for further consideration. Plover Cove was considered the most suitable area. Three sites in Plover Cover, including Lung Mei, Shuen Wan and Sha Lan, were short-listed for further consideration. The key environmental concerns of the site comparisons were the extent of reclamation and dredging, which would unavoidably impact on the water quality, marine ecology and fisheries. Therefore, having considered the extent of dredging and reclamation, proximity of sensitive receivers such as Ting Kok SSSI and Yim Tin Tsai East Fish Culture Zone, provision of additional transport infrastructure and potential impacts (particularly water quality, waste management, marine and terrestrial ecology and fisheries) to the environment, Lung Mei was considered the most suitable site in Tai Po.

12. A Member expressed concern about the suitability of developing Lung Mei Beach as a gazetted beach from the ecological point of view as the project site was a muddy beach providing favourable habitat for marine organisms. Mr Peter Shek highlighted that the existing beach was a sandy beach with coarse sand and not a muddy beach. The inter-tidal habitat was mainly a sandy shore with spread of finer to coarser sand and scattered rocks towards the lower inter-tidal or sub-tidal area. The EIA study concluded that the development of a gazetted beach at Lung Mei would be environmentally acceptable.

Scale of the project

13. On the Chairman's enquiry about the scale of the project, Mr Andrew Jackson said that Section 3 of Appendix A in the EIA Report showed the considerations and constraints in the design of the layout plan. Having regard to the environmental considerations, every effort had been made in the design stage to optimize the size of the project and to avoid impinging on environmentally sensitive area. For example, the size of the car park was reduced from 200 to about 110

spaces and the area of reclamation was reduced to 1.02 ha. The scale of the development had to be in a certain size to make it viable and worth investing. The proposed development would not lead to any on-site or off-site adverse impacts.

14. The Chairman noted that the project had been submitted to the Town Planning Board (TPB) and there had been changes in the scale of the project. Mr Ricky Wong said that the proposed project size included a total area of about 1.84 ha, comprising about 0.82 ha of an existing land and a proposed reclamation area of about 1.02 ha. The proposal was first submitted to the TPB in 2006. Having regard to the findings of the traffic impact assessment, a revised proposal with reclamation area of about 1.9 ha (to cater for the proposed widening of the Ting Kok Road for entrance to the car park) was re-submitted to the TPB. In view of the concerns of the TPB on the expanded scale, they further reviewed the requirements and reframed the project to the original size. The beach area of about 6,000 m^2 was the minimum size for catering the demand of 4,000 beach users per day in peak seasons. It should be noted that other alternative sites, such as Sha Lan, would require greater extent of reclamation of about 2 ha.

Water quality impacts

15. The Chairman considered that the water quality impact caused by the project during the construction and operation phases was insignificant. Nonetheless, the water quality issue was important in considering the impacts on health of bathers. Mr Andrew Jackson said that while the existing Lung Mei Beach was not a gazetted beach, it was currently used by frequent bathers in a relatively unmanaged manner from the public health point of view. Enhancing the beach to a gazetted beach up to the required standards would protect the health of beach users.

16. On the Chairman's enquiry about the suitability of water quality for public bathing purpose, Mr Alfred Chow explained that the proposed improvement works of the project involved the diversion of drains and provision of groynes. With the addition of the implementation of the new sewage system (under the Tolo Harbour Sewerage of Unsewered Areas Stage I Phase IIC carried out by the Drainage Services Department (DSD)), the modelling results predicted that these improvement works would significantly improve the water quality. Over 86% of the time during bathing seasons in the operation phase, the weekly beach gradings

of the beach would be of Grade 2 or Grade 3 which was considered acceptable for public bathing purpose. The proposed site was considered to be suitable to operate as a bathing beach with regard to the compliance with the Water Quality Objective (WQO) for *E. coli*.

17. A Member enquired about the operation downtime for other gazetted beaches. Mr Alfred Chow said that Grade 4 weekly reading was recorded in three beaches, namely Ma Wan, Golden Beach and Silver Mine Bay, during the swimming season in 2007 and the downtime was about 3%. According to EPD's annual report on beach water quality in 2006, the downtime for Big Wave Bay, Ma Wan, Tung Wan and Cafeteria New Beach with Grade 4 weekly reading was about 3% to 6%.

18. A Member expressed concern about the anticipated downtime of 14% for Lung Mei Beach. She noted from the EIA report that the level of *E. coli* increased from 26.5 cfu/100mL in 2000 to 147.9 cfu/100 mL in 2006. The project proponent team explained that there were two ranking systems for assessing the water quality of beaches in Hong Kong. The annual ranking system was based on the maximum level of *E. coli* of 180 cfu/100 mL set out in the WQO. The weekly grading system was mainly provided to LCSD for considering the opening or closing of beaches for bathing purpose. The water quality modelling conducted for the project covered all the existing marine environment of Plover Cove and Tolo Harbour area, including coastline as well as current, tidal and seasonal influences. The provision of two groynes at the project site and diversion of drains from the beach boundary would help improve the water quality. There would be further improvement in water quality after the completion of the new sewerage system which allowed the residents in Lo Tsz Tin, Lung Mei, Wong Chuk Tsuen and Tai Mei Tuk to connect their sewers to the public sewer. This public sewer would deliver the sewage to the Tai Po Sewage Treatment Plant for further treatment. It was anticipated that the sewerage system would be completed prior to the operation of the proposed beach development and approximately 60% of the private sewers would be connected to the public sewer.

19. Mr Ricky Wong further explained that Table 6.27 of the EIA report showed that the water quality could meet the criterion for bathing beach under the annual ranking system. Table 6.28 of the EIA report showed the predicted percentage of weekly gradings during the operation phase. The water quality

under Grade 2 would be significantly increased from 19% in pre-development phase to 62% in operation phase.

20. A Member enquired about the modelling results shown in Table 6.21 of the EIA report. Ms Aimee Lau explained that the table showed a comparison of relative change in *E. coli* concentrations between pre-development phase and operation phase at different modelling assessment points. There were different levels of improvement at different assessment points. Based on the modelling results, it was predicted that the overall *E. coli* level (by taking the average as following the usual practice) would meet the standard of 180 cfu/100 mL. It also showed that there was no exceedance in the *E. coli* level for individual sensitive receivers within the beach area.

21. Two Members expressed concern about the lead time for DSD to complete the new sewerage system before operation of the beach. Mr Andrew Jackson highlighted that the improvement of beach water quality did not depend solely on the new sewerage system but also the diversion of existing drains outside the beach boundary and provision of groynes. Table 6.28 of the EIA report showed that the predicted weekly grading of water quality was not sensitive to the rate of sewerage connection ranging from 20% to 60%. The new sewerage system project was independent of the development of the beach and would be proceeded regardless of the beach project. Moreover, the Civil Engineering and Development Department (CEDD) had closely liaised with DSD on the new sewerage project and DSD had agreed to complete the works in Lung Mei area in parallel with the completion of the beach project. They had confidence that the 60% sewerage connection rate of village houses to the public sewer could be achieved.

22. The Chairman enquired about the contingency plan in the event that the new sewerage system could not be completed in time before the opening of the beach. Mr Ricky Wong said that before the operation of the beach, CEDD would liaise with DSD on the progress of the new sewerage system. As an Environmental Monitoring and Audit requirement, CEDD would also conduct at least six weeks' water quality monitoring at the two drainage outfalls and EPD routine monitoring stations to check the *E. coli* concentrations. The result would be passed to LCSD for decision on the timing of the opening of the beach for bathing. Mr Alfred Chow said that some beach facilities might be opened for

recreational purposes and the public would be alerted that the beach water quality was not yet suitable for bathing.

23. A Member considered that the crux of the matter was that whether the Lung Mei Beach was suitable for developing as a gazetted beach after completion of all the improvement works and whether there would be unacceptable environmental impacts arising from the development. The operation downtime based on water quality assessment of different beaches would vary among beaches. Mr Alfred Chow confirmed that the proposed beach development was considered suitable having regard to the result of the EIA study. The beach water quality of Grade 2 to 3 and the operation time of 86% were considered acceptable for public use. Besides bathing, the beach could also be a recreational area for public playing in the sand area, sunbathing and other beach activities.

24. A Member expressed concern that the presence of the two beach groynes might potentially affect water circulation in the bay and thus water quality of the coastal area at the east and west of the project area. Mr Terence Fong explained that the EIA study had examined the effect on flushing circulation due to the presence of the two groynes on water quality of the coastal area. The results showed that there would be negligible differences of dissolved oxygen levels between pre-development phase and operation phase and hence this also revealed that the water quality would not be deteriorated by the presence of project-related structures and no significant adverse effect on flushing circulation was expected.

25. A Member considered that the sewer holding tank with a capacity of 10 m^3 might be insufficient for 4,000 beach users per day. Mr Ricky Wong explained that there would be a bypass in the design of the sewer holding tank that would be used to regulate the flow from beach facilities to the existing trunk sewer, should there be any overflow in the holding tank. To avoid overloading the public sewer during peak hours, the sewage from the beach facilities would be stored at the holding tank and gradually discharged to the public sewer at mid-night by means of a controlling system. Therefore, the peak sewage flows from the beach and the villages would not be concurrent. The capacity of the holding tank was sufficient for the design of sewerage and bathing area based on the requirements of the Architectural Services Department.

Action

Impacts arising from changes in hydrodynamics due to the project

26. In reply to a Member's enquiry about the possibility of sand drifting, Mr Peter Shek said that the minimum grain size of the sand was 0.4 mm. Appendix B of the EIA report showed that the grain size used in the wave and sediment modelling was 0.2 mm, 0.25mm, 0.3 mm, 0.4 mm and 0.5 mm for comparison. The scope of modelling included cross-shore and long-shore drifts between the two beach groynes (one 100-metre long at the west and one 120-metre long at the east). The annual net drifting rate of the sand was predicted to be in the range of 10 m^3/year to 150 m^3/year from the east to the west. With the current configuration, the net sand drift would be contained within the two groynes and that no sand loss from the project site was anticipated during operation. The orientation of the beach was along the existing coastline and the groyne alignment was optimized at 145º to the north, in line with the hydrodynamic conditions in the area.

27. The Chairman enquired about the assessment of the worst-case scenario on sand drifting. Mr Peter Shek said that the EIA study had simulated the worst-case scenario on extreme weather conditions with extreme wave height by wave hind-casting method using wind data from the Tai Mei Tuk station. In reply to a Member's enquiry about impacts during extreme conditions, Mr Shek said that the prediction included extreme wind conditions of 1 in 100 years return period as shown on page 15 of Appendix B of the EIA report. The simulation results concluded that with the provision of gyrones, sand loss would not be anticipated as the beach was located in a relatively sheltered area.

28. A Member enquired about the impacts of human activities (such as water sports activities) as a driving force for sand drifting. Mr Ricky Wong explained that the major driving force for sediment transport was wind-driven. Human activities would have insignificant impact on sediment movement. It should be noted that the beach area was within the vessel speed restricted zone of Plover Cove with a maximum allowed speed of 5 knots.

29. The Chairman expressed concern about the long-term effects on the natural coastline arising from changes in hydrodynamics due to the project. Mr Peter Shek referred to the wave and sediment modelling report in Appendix B of the EIA report and explained that there would be minimal impact due to the relatively

mild wave condition in the Plover Cove region. As shown in the site history and aerial photographs of the project site from 1945 to 2004 in Figure 7.5 of the EIA report, there was little change in the coastline of the bay. Even with the construction of the artificial Plover Cove dam after 1963, there was not much change in the coastline along the Plover Cove region. Moreover, no re-deposition of sand was expected as the wind direction was from the east to the west and there was no major sand or sediment source at the upwind area. The presence of the two groynes would have minimal impacts on the coastline.

Sustainability of the artificial beach

30. In reply to the Chairman's enquiry about the stability of the sand profile, Mr Ricky Wong explained that a hydrodynamic analysis of the beach development had been conducted to predict the sand drift and seasonal changes in sand profile. It was concluded that the proposed beach would be aligned at an equilibrium angle of 145° to the north which was an optimal scenario in order to achieve zero net sediment transport and minimize sand loss. With the provision of groynes, seasonal movement of the sand would be contained within the two groynes to prevent sand loss to the nearby areas. No adverse environmental impact due to sand drifting was therefore anticipated.

31. A Member enquired about the source of sand for sandfilling. Mr Ricky Wong said that the source of sand would be mainly from Zhu Jiang in the Mainland. CEDD had experience in conducting sand replenishment works for other beaches with sand from the same source.

32. A Member enquired about the need for sand replenishment. Mr Ricky Wong said that the chance for requiring sand replenishment was very remote except after very extreme storm attack. In reply to the Chairman's enquiry, Mr Wong said that examples in the USA and Europe showed that after severe storm attacks, the sand was driven off shore forming a sand bar outside the beach area and the sand could be recycled for the beach replenishment without importing new sand. Alternatively, the sand could be gradually moved to the original beach area by the gentle wave after a long period of time.

Action

Ecological study

33. The Chairman noted that there were doubts about the thoroughness of the ecological survey conducted. Mr Terence Fong clarified that the ecological study included a literature review and ecological baseline surveys. Ecological baseline surveys for the major floral and faunal groups were carried out for six months duration covering wet season (July to October) and dry season (November to January) to verify the information collected and fill the information gaps. The surveys were conducted by a team of qualified ecologists with reference to guidance notes of the EIA Ordinance on ecological assessment. There were adequate sampling points covering the whole study area for all major floral and faunal groups for terrestrial ecological resources including vegetation, terrestrial mammals, birds, herpetofauna, invertebrates and freshwater fish. Surveys for marine ecological resources included inter-tidal survey, sandy shore and mangrove, artificial/disturbed shoreline, benthic survey and dive survey. The survey period covered all active and conspicuous period of different wildlife groups and nighttime surveys were conducted to counter-check the findings. Survey days were separated at appropriate intervals. Regarding the record of birds, a large variety of birds were recorded in the study area during the quantitative and qualitative surveys, including shore birds such as Common Sandpiper and Little Egret, as shown in Table 1 of Appendix G of the EIA report. The ecological survey was conducted in accordance with the study brief and the survey was considered sufficient for EIA study.

34. In response to the Chairman's enquiry, Mr Richard Chan advised that the frequency and duration of the ecological surveys conducted were considered adequate for the purpose of ecological impact assessment.

35. The Chairman noted that there were concerns about the dive survey which seemed to be conducted on a cloudy day in April with poor visibility under water. Mr Terence Fong explained that the main purpose of the dive survey was to record coral information. It was a common phenomenon in Hong Kong that the visibility under water was limited to about 1 to 3 m. The ecologists were experienced in conducting dive surveys in such weather conditions and they had no difficulty in locating coral species in the artificial shoreline and sandy rock shoreline. Sufficient information in the study area and adjacent water areas up to Yeung Chau and Ma Shi Chau was obtained by the survey team.

36. Mr Alan Chan said that the dive survey was conducted in accordance with the guidance notes. There were photo records showing the seabed environment in the study area and adjacent areas. The visibility of the Tolo Harbour was generally not good.

37. A Member expressed concern about the loss of habitats for the birds, such as White-bellied Sea Eagles, after clearance of the backshore vegetation. Mr Terence Fong confirmed that no White-bellied Sea Eagle was found nested in the study area. The nearest White-bellied Sea Eagle nesting site reported was in Yeung Chau which located about 800 m from the boundary site. The affected area was mainly village/modified habitats with some vegetations dominated by exotic plant species which was not a favourable nesting habitat for White-bellied Sea Eagle.

Traffic impact assessment

38. A Member enquired about the traffic impact assessment arising from anticipated increase in traffic flow after completion of the project. Mr Ricky Wong said that a traffic impact assessment (TIA) study was conducted in parallel with the EIA study. The TIA also included prediction of the potential traffic growth along Ting Kok Road, taking into account all the planned developments in the vicinity, such as Tsz Shan Monastery development. The predicted maximum traffic demand on road usage up to 2016 was 2,010 passenger car unit per hour which was within the estimated maximum capacity of 2,300 passenger car unit per hour at Ting Kok Road (two way).

(The project proponent team left the meeting at this juncture.)

Internal Discussion Session

39. The Chairman considered that from the perspective of environmental impacts caused by the project during the construction and operation phases, the impacts were not significant. Nonetheless, there were concerns about the suitability of developing the site as a bathing beach from the environmental point of view. The following three key issues had to be addressed –

(a) suitability of the beach water quality for public bathing purpose;

(b) minimization of the scale and footprint of the project; and
(c) long-term impacts of hydrodynamic changes due to the project.

40. On (a) above, a Member considered that while the objective of the EIA process was to protect the environment, the concerns on health of human beings which was a sensitive receiver would also be considered by the EIA. The development of beach facilities would attract beach users and it was necessary to ensure that the bathers would not be subject to health impact due to unacceptable water quality.

41. Mr Simon Hui explained that according to the Technical Memorandum on Environmental Impact Assessment Process, the assessment criterion with respect to human health for all bathing beaches in Hong Kong waters was the WQO. The EIA report showed that the criterion could be met, even under worst-case scenario in wet seasons, with the implementation of mitigation measures.

42. In reply to the Chairman's enquiry, Mr K H To said that at present, the WQO for Tolo Harbour and Channel Water Control Zone (Buffer Subzone) did not specify the criterion of *E. coli* level for bathing beach because there was no bathing beach within the Water Control Zone but such criterion (i.e. *E. coli* of 180 cfu/100 mL) would be considered for inclusion in the aforesaid WQO to tie in with the opening of the Lung Mei Beach. As regards the opening or closing of the beach for bathing purpose, the decision rested with LCSD. As an established practice, EPD had a water quality monitoring programme for all gazetted and non-gazetted beaches by conducting water sampling and testing for at least three times per month and at least twice per month respectively during the bathing seasons. The monitoring results in terms of gradings would be provided to LCSD on weekly basis for reference.

43. Two Members considered that it was necessary to secure the commitment from the project proponent that DSD's new sewerage system for the Lung Mei area would be completed in time prior to the opening of the beach.

44. A Member considered that it was also important to ensure that the anticipated sewerage connection rate could be achieved, not only for new village houses but also for existing village houses. Mr K H To said that further to the

installation of a public sewer along Ting Kok Road, DSD planned to establish a new sewerage system allowing residents in Lung Mei area to connect their sewers to the public sewer and that the sewerage system would be completed prior to the operation of the proposed beach development. Under the Water Pollution Control (Sewage) Regulation, the Government might send a notice to the owner of certain premises requiring that all the waste water produced from the premises be conveyed to a specific location, terminal and manhole for connection to the public sewer when one was available. This applied to both existing as well as new village premises. The maximum penalty for contravention of the provision was a fine of $100,000 and a daily fine of $5,000 if the offence was proved to be continued. Based on the experience of EPD and DSD regarding implementation of village sewerage projects, the sewerage connection rate of 60% could be achieved in Tai Po area. They had consulted DSD about the plan of the new sewerage system and DSD advised that they would reschedule the construction programme of the sewerage works in Lung Mei area to advance the completion of the project to November 2010 in order to tie in with the opening of the proposed Lung Mei beach.

45. A Member reiterated her concern about the estimated downtime of 14% for bathing purpose. She worried that substantial financial resources might be required afterwards for improvement of water quality for bathing purpose, such as in the case of Cafeteria Beach.

46. On (b) above, the Chairman considered that while the site was originally a non-gazetted sandy beach and the purpose of the project was to enhance it as a gazetted beach, it was important to justify that the development would cause minimum impacts on the natural landscape and coastline. A Member considered that the project was not purely an enhancement project as the existing beach area would be made concrete for building facilities such as car parks and an artificial beach would be made by reclamation. Mr Richard Chan referred to the Habitat Map at Figure 8.1 of the EIA report which showed that a large part of the project site was already village/modified area (such as rural villages, car parks, recreational areas, wasteland and abandoned agricultural land) and part of it was sandy shore and backshore vegetation area with low ecological value.

47. A Member said that he learnt that Lung Mei Beach as well as Sha Lan Beach were originally natural sandy beaches and the sandy shore was drawn underneath the sea level after the construction of the Plover Cove dam. The

proposed project was to restore the beach and the development was in line with the principle of sustainable development.

48. On (c) above, the Chairman was concerned about the long-term effects on the natural coastline in Ting Kok area arising from the change in hydrodynamics due to the project. A Member said that the Plover Cove Bay was a low hydraulic area with little wave action and tidal currents. The impacts of hydrodynamic changes should be minimal. A Member concurred with the consultant's observation that the construction of the Plover Cove dam showed that the impacts of the hydrodynamic changes on the coastline would be minimal.

49. A Member considered that the provision of recreational facilities such as the development of a bathing beach would in general benefit the public. If necessary, supplementary information could be obtained from the project proponent for clarification of doubts.

50. A Member suggested that the project proponent should be required to provide downward street lighting without flare to minimize impacts on star-watching activities and to incorporate environmental education elements in the project to promote conservation and environmental protection, such as exhibition boards to promote mangrove and natural areas in Tai Po.

51. Members agreed that the project proponent should be required to provide supplementary information on the following aspects before making a decision –

(a) confirmation that the new sewerage system under "Tolo Harbour Sewerage of Unsewered Areas Stage I Phase IIC" in the Lung Mei area would be completed prior to the operation of the proposed beach development at Lung Mei;

(b) justifications on the scale of the project; and

(c) assessments on the long-term effects on the natural coastline in Ting Kok area arising from the change in hydrodynamics due to the project.

52. Members also agreed that should the Council decide to endorse the EIA report, the following conditions were proposed –

(a) the proposed beach development at Lung Mei should be opened only after the new sewerage system under "Tolo Harbour Sewerage of Unsewered Areas Stage I Phase IIC" in Lung Mei area was completed;

(b) the project proponent should conduct regular monitoring on the water quality of the bathing beach in the first two years after the opening of the beach to assess the effectiveness of the water quality mitigation measures. The information should be provided to EPD for information and appropriate follow-up actions, if necessary; and

(c) the project proponent should provide downward street lighting without flare to minimize impacts on star-watching activities.

53. The meeting also agreed the suggestion for the project proponent to incorporate environmental education elements in the project to promote conservation and environmental protection, such as exhibition boards to promote mangrove and natural areas in Tai Po.

Post-meeting note: The supplementary information provided by the project proponent was circulated to Members. In response to some further queries, additional information was provided by the project proponent which was circulated to Members. Having considered the additional information provided by the project proponent, the Subcommittee agreed to recommend to the Council that the following outstanding issues and concerns be further discussed –

(a) justifications for the extent of reclamation and possibility of reducing the size of reclamation;

(b) time frame in achieving the 60% sewerage connection rate for village houses in Lung Mei area to connect the private sewers to the public sewer, and the implications (particularly on public expenditure) if the anticipated sewerage connection rate could not be achieved; and

(c) difference of information about intertidal fauna between those presented in the EIA report and recent findings of members of the public, and implications on the assessment of the ecological value of the project site.

Agenda Item 4 : Monthly Updates of Applications under the Environmental Impact Assessment Ordinance

54. Members noted the updates.

Agenda Item 5 : Any Other Business

Tentative items for discussion at 101st meeting

55. The agenda was being compiled. Members would be informed in due course.

Agenda Item 6 : Date of Next Meeting

56. The next meeting was scheduled for 21 January 2008.

EIA Subcommittee Secretariat
January 2008