Relevant extract of the draft minutes of the Environmental Impact Assessment Subcommittee meeting held on 14 April 2025

EIA report on "Proposed Comprehensive Development with Wetland Enhancement (CDWE) at Nam Sang Wai and Lut Chau"

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Question-and-Answer Session (Open session)

Location of Development Site

1. To address a Member's question on the selection of the development area in the southernmost portion of NSW which was assessed to be of high ecological value with the presence of reedbeds, Dr Michael R Leven explained that, in compliance with the development principle agreed by the Town Planning Board (TPB), the development site was located at the farthest end away from Deep Bay and the Mai Po Nature Reserve (MPNR) which was a tidal area of Deep Bay. He opined that the ecological impacts of the project should be considered on an overall basis having regard to the current and potential value of the habitats concerned as well as the speed of their mitigation. Dr Leven shared that the reedbeds in the southwest corner of the site were only typical reedbeds the reprovision of which would take a couple of years whereas the Eucalyptus trees in the southwest corner would take 50 to 60 years to recover if the development were put there. Considering the aforesaid and that most of the water birds currently using the site were using the river instead of the areas where the development would take place, Dr Leven remarked that the proposed development site would cause the least direct impacts which could be easily mitigatable in the short term. He highlighted that one of the first mitigation measures would be the reprovision of reedbeds before the existing ones would be touched.

Impacts on Birds

2. Two Members sought details about the extended roosting sites and flight paths of the Great Cormorants with reference to the information provided in some public comments. In particular, one of the two Members asked whether the development footprint encroaching into the buffer zone of the cormorant roost could be avoided.

3. Dr Michael R Leven explained that Great Cormorants could roost in different locations spanning from NSW, Mai Po to Lok Ma Chau and they liked to choose relatively undisturbed tall and large trees with open canopy. The tree species chosen could vary and Eucalyptus trees was one possibility while most of the

cormorant roosting at MPNR was found in casuarina trees. Dr Leven admitted that some additional trees in the extreme southwest of the site which had been used by Great Cormorants in last winter were not mapped in the report, but he considered that the public comments had greatly exaggerated the proximity of the trees to the site. During his subsequent site visit, Dr Leven confirmed that the roosting sites closest to the proposed development site identified in the public comments were banana trees, macaranga trees etc. on which the cormorants would not roost. He said that the project proponent had as far as possible avoided the roost trees and the flight lines to minimise the impacts on Great Cormorants and they would return to the site next winter to identify the locations of the Great Cormorants and make amendments to the footprint of the high-rise development, if required. Other mitigation measures, such as using quieter piling method and noise barriers during construction, restricting piling works to daytime during winter period, prohibiting public access to the roost trees etc. would be implemented. Dr Leven assured that they would not fell any of the trees used by the roosting cormorants and the development would be at least 150 metres (m) away from the roosts.

4. To ensure the perpetual availability of Eucalyptus trees for roosting of cormorants, Mr M Y Wan shared that there would be a continuing Eucalyptus replanting programme in NSW as the existing ones in the areas were reaching their life expectancy, so that the new trees would be of different ages rather than the existing ones which were all of the same age. The Chairman suggested that more details including the locations of the new plantation should be provided in the conservation plan. Mr Paul Leader indicated that relevant details were included in the Conservation Management Plan (CMP) in the EIA report.

5. The Chairman reminded that bird friendly design of buildings was an essential requirement for development in the wetland areas under the prevailing guidelines, but such information was not mentioned in the EIA report. M Y Wan assured that no curtain walls would be used. Unlike the commercial buildings which were often with extensive window walls of plate glass, Dr Michael R Leven said that residential buildings would be less of an issue for birds as the windows were smaller and often with set back behind balconies. He said that a list of the ecological impact assessments on measures to be taken to prevent birds flying into buildings such as the adoption of fritted glass were provided in the EIA report and could be included in the detailed design of the buildings.

Baseline Data

6. A Member and the Chairman enquired if more updated information on the baseline data would be available to address the public's concern on the current set of referenced data which seemed not up-to-date. Dr Michael R Leven clarified that the main surveys for the ecological impact assessment were completed in July 2022 which was in compliance with the requirement of conducting the ecological survey within 36 months before submission of the EIA report. He said that the project proponent was prepared to do further surveys before the commencement of the development works even if a condition was not imposed on this aspect.

7. The Chairman held the view that bird distribution maps should be provided to illustrate their presence, especially those species of conservation interest, in the project site to serve as the baseline. Dr Michael R Leven replied that it might not be very helpful to indicate the exact locations of large water birds as they were very mobile and could be recorded all over the place. Mr Paul Leader indicated that they tended not to map the birds as it was impractical to do so. Instead, they had provided the distributional data for all birds including species of conservation importance in the appendix to the EIA report, and those less mobile fauna species of conservation importance were marked in the distribution map.

8. The Chairman suggested that the project proponent should consider providing the estimated change in the number of target species associated with habitat change to serve as an indicator for environmental monitoring and audit (EM&A) in future. In addition, he said that data on habitat quality and evaluation of the ecological value of lily ponds and shallow tidal ponds should be provided to support the proposed choice of habitat to replace the existing 1 hectare (ha) of open water which was assessed to be of medium to high ecological value. Dr Michael R Leven said that they would make qualitative enhancements such as removing invasive vegetation, managing the water levels etc. to ensure that there would be no net loss in wetland function and wetland value. As for the open water habitat, improvement would be made by draining down the ponds to provide food for birds the results of which could be measured through the number of birds in the area. As for the habitats which were yet to exist, such as lily ponds and shallow Gei wai ponds, Dr Leven said that the assessments would be based on the experience of other comparable sites at MPNR, the Lok Ma Chau Wetland Enhancement Area etc. which were objective and realistic. In reply to the Chairman's enquiry about the wetland compensation ratio without taking into account the government land, Mr M Y Wan confirmed that the wetland compensation ratio would then be 723%.

Impacts on Fireflies

9. Highlighting that there would be a blank wall facing the habitat of the Mai Po Bent-winged Fireflies (MPBWF) at the development site, a Member raised questions on the avoidance of light spillage and light disturbances from different directions. Dr Michael R Leven remarked that unlike birds which were attracted to light, fireflies liked dark places. He considered that the most important mitigation work would be the creation of new firefly habitats by restoring the lost mangroves at LC where light sources were far away. Dr Leven opined that with the implementation of a three-pronged strategy, the light impacts on the fireflies at the southwest of the site would be minimised. First of all, single-aspect buildings design would be adopted to shield light exposure to the habitat of MPBWF. Secondly, a tall green wall of dense bamboo together with the existing Eucalyptus trees forming a screen wall. Given that the fireflies would be flying just above the mangrove or above the mangrove associate, Dr Leven said that higher light would be avoided and the lighting around the site for safety or security purposes would be of low lumen and placed close to the ground.

10. Considering that light pollution would have an impact on a wide range of species including insects, birds and large mammals in the wetland areas, the Chairman opined that light pollution simulations should be conducted to assess the overall light impacts of the 28 blocks of buildings and 140 houses on sensitive receivers in the area even though light pollution impact assessment was not a requirement under the EIA Ordinance (EIAO). Apart from the proposed mitigation measures such as green walls, the Chairman requested to see more concrete information such as a comparison of the light simulation results before and after the implementation of mitigation measures to confirm whether the light impacts would be at an acceptable level.

11. Dr Michael R Leven explained that they had adopted pragmatic means such as single-aspect buildings to eliminate light impacts because light simulation might not be realistic. He considered that the most important mitigation measure would be the provision of compensatory habitat with long-term management as fireflies were short-lived species the population of which could rise and fall quickly. He added that the lighting within the development area would be kept to the minimum as there was set back of the buildings from the fringes. As the number of light-sensitive faunas in the development site was not substantial, the residential lightings which were not as strong as those of commercial buildings would unlikely have undue impact on them. Quoting the Lok Ma Chau Wetland as an example, despite its proximity to the brightly lit Lok Ma Chau Station and the commercial development in Shenzhen, Dr Leven shared that no serious impacts to the wildlife and birds in the areas were observed. Noting that some NGOs had provided different assessment on the value and importance of various habitats in the project site, Dr Leven opined that the ecological value of different areas could be somewhat subjective. He highlighted that the assessment in the EIA report was based on the Technical Memorandum on EIA process (TM) and had been reviewed by AFCD.

Impacts on Fisheries

12. A Member asked for details about the reduced areas of fishponds and the impacts on sustainable development of fisheries in the area. Mr Paul Leader indicated that a lot of the fisheries on site were not sustainable in the ecological sense and unauthorised activities such as storage of waste materials and illegal dumping were common in the area. While there would be a loss of some 9 ha of active fishponds, he said that there would be mitigation measures such as the reinstatement of inactive fishponds. He added that 4 ha of mangroves had already been converted to fish ponds in the past decade. Apart from increasing the ecological value of the mitigation areas and creating the Lut Chau Nature Reserve (LCNR), Mr Leader assured that they would upgrade and transform all of the fisheries into more sustainable ones. He also confirmed that LC would be enhanced as wetland as a whole and all ponds therein would be enhanced, reprofiled and managed to provide food for birds.

13. Regarding the loss of 9.25 ha of active fishponds, the Chairman sought to have information on the compensation to the impacted fishermen as there would a loss of 8.6 tonnes of fish per year. Mr Paul Leader explained that the bulk of the loss were focused in the reedbed in LC. He said that the local fish pond operators were expected to take over the previously abandoned ponds or undertake fisheries functions in the created intertidal ponds and the retained fish ponds in both NSW and the southern end of LC.

Sustainable Development

14. Noting that the project proponent had planned to raise the peripheral bund and establish a tidal pond of 5 ha at LCNR, a Member raised questions on the reasons, functions and distribution of the proposed habitat and whether the same would be provided in NSW. The Member also asked if there were measures to address storm surge and sea level rise caused by extreme climate.

15. Mr M Y Wan explained that there was rising tide and driving wind on the western side of LCNR and the proposed bund could be raised without the import of fill materials. Subject to the availability of sufficient fill material from the development site, the project proponent would explore the possibility of raising the western bund from the existing 3.5 metres principal datum (mPD) to 4.5 mPD. Mr Wan indicated that it would not be feasible to raise the peripheral bund at NSW as the site was surrounded by public roads with drainage channels. He remarked that the road was at about 3.5 mPD level with a parapet of some 1 m which could serve as a protection to the area in case of flooding tide. For the residential area, he said that the level of the vehicular access point would be raised to avoid flooding in the basement.

16. Mr Paul Leader highlighted the importance of managing the water levels in wetland management. Taking into consideration the changing rainfall distribution patterns in the past two decades and their experience at Lok Ma Chau, Mr Leader said that the ponds would be designed with high flexibility by installing comprehensive system of pumps, overflow pipes and sluices to deal with different water levels. For instance, water had to be retained on site during the dry season by pumping or moving through sluices whereas unwanted water intrusion into fish ponds should be prevented during storm surges which was one of the reasons for increasing the perimeter height at LC. He said that the tidal ponds would be reinstated and managed as traditional Gei wai ponds, predominantly for wildlife habitat.

17. Mr Paul Leader said that there were relevant experiences in the implementation of environmental mitigation measures and habitat enhancement in Hong Kong. Sharing their previous experience in the first major wetland compensation project at Lok Ma Chau, he said that the current project would adopt a similar approach to establish an environmental committee comprising relevant stakeholders such as members of non-governmental organisations (NGOs) and

academics to oversee the implementation. He hoped that a condition on this aspect would be imposed.

Project Timeline

18. In reply to a Member's question about the timeframe and procedures on the completion of wetland establishment, Mr M Y Wan indicated that the project proponent had pledged to complete the wetland construction and establishment before the commencement of the development works. After establishing the wetland habitats according to the Conservation and Management Plan, including planting the vegetation required, the project proponent would hand over the wetland to the Government for long-term management.

19. Highlighting the importance of conservation before construction, the Chairman reminded that the environmental conservation measures should be completed in compliance with the requirements of the wetland conservation plan before the commencement of the development works. Dr Michael R Leven said the project proponent would ensure that the wetland in LC and NSW would be up and running to provide compensatory habitat for the impacted species before building works would start. He said that a condition on this aspect was expected. Mr M Y Wan added that subject to road-gazetting procedures, the bridge at the south of the development site would need to be built earlier to facilitate the transportation of construction materials to the development site.

20. Considering that private land and government land would both be involved in the project, a Member questioned if the proposed work schedule was practicable and whether the 6-month establishment period for the wetland in the land owned by the Government in LC was sufficient since 12 months were normally required for the establishment of the habitats. Mr M Y Wan responded that it was because different habitats had different establishment period. Mr Paul Leader replied that the whole process would be subject to the detailed design and the submitted programme timeline was an indicative one. Based on his experience on similar projects, he considered the programme schedule reasonable. Since the project proponent could not proceed with other parts of the project if the habitats were not established, he said that there would be a strong incentive for them to speed up the process by putting in more resources.

21. In response to the Chairman's suggestion of condensing the construction period for wetland creation in NSW so as to minimise the overall impacts, Mr Paul Leader explained that the programme was longer than expected because it would take at least a year for the reedbed to be fully established though it was relatively quick for the reprofiling of fish ponds and the creation of intertidal ponds. The Chairman held the view that the project timeline should be modified, taking into consideration different elements such as the time required to acquire the land, to make the programme more realistic. Mr M Y Wan explained that the timeline had become tighter than planned as more than one year was spent on providing responses

to different comments. Mr Wan said that the presentation of the programme timeline would be revised to avoid misunderstanding.

Land Matters

22. The Chairman questioned why the enhanced wetland was placed in the middle of LC rather than at the edge of the northern part which would be closer to Mai Po. He also enquired about the reason of putting the habitat in the Government land instead of private land. Mr M Y Wan replied that the entire LC, comprising both government land and private land, would be tidied up and converted into a Nature Reserve. Under the master planning, the proposed development area of 11.6 ha in NSW was on private land. He said that the grassland area would be retained for the enjoyment of the local residents and it would serve as the entrance of the future Wetland Enhancement Area. The common boundary of the development site with the wetland would have a footpath designated as estate common area. No individual occupant could breach the boundary and invade the wetland. There would be regular patrol by estate management to enforce estate rules. The common areas would be restricted for leisure activities such as cycling and jogging to minimise human disturbances to the habitat. Considering that there would be around 6,500 residents in the new development area and different human activities such as cycling and jogging would be involved, the Chairman opined that there should be an assessment on the cumulative impact of human disturbances and the project proponent should provide more details to illustrate how such disturbances could be minimised with mitigation measures and the relevant information such as the location of tree walls and gates etc. should be clearly indicated on the maps concerned.

23. Given that the site concerned was not fully owned by the developer and different activities were ongoing on the site, a Member enquired about the procedures of the fishpond enhancement works at LC and the subsequent development plan when an agreement was reached for the land arrangement with the interested parties. Mr M Y Wan replied that they were still in discussion with the Lands Department (LandsD) to sort out the land premium payment procedures and the inclusion of the wetland establishment works in the relevant land documents. On clearance of the various ongoing activities on the site, the project proponent would need to sort out with the government departments concerned to work out the relevant land, planning, housing issues etc.

24. Mr M Y Wan indicated that the actual implementation would be subject to the availability of the sites concerned. The project proponent would explore to commence the habitat establishment works in those sites provided to them as the government land would mostly be handed over to them by phase. He explained that the establishment time for different habitats in LC which included lily ponds, reedbeds, fish ponds and open ponds would vary while reedbeds might require the longest establishment time. On a Member's further question concerning the subsequent management of the wetland habitats, Mr Wan said that according to the New Nature Conservation Policy, the project proponent would hand back the land to

the Government once the establishment work was completed and AFCD would manage the enhanced wetland.

Supplementary Information

25. The Chairman requested the project proponent to provide supplementary information on the following 7 aspects within two weeks' time -

(i) detailed written responses to all 75 negative public comments on the proposed project. The project proponent might group similar comments into categories. Most importantly, the project proponent must address any errors in the EIA report as identified by the public;

(ii) light pollution simulations with suggested mitigation measures, in particular the location(s) of the single aspect buildings should be clearly marked in the relevant map / diagram of the project;

(iii) details on the assessment of cumulative human disturbances with suggested mitigation measures;

(iv) bird distribution maps illustrating their presence, especially those species of conservation interest, in the project site to serve as the baseline;

(v) a modified project timeline, taking into consideration different elements such as the time required to acquire the land, to make the programme more realistic;

(vi) more details about the EM&A Plan, especially on how to measure the effectiveness of the enhanced wetland for increasing the biodiversity, such as by stating the number and targeted species to set the baseline for monitoring the effectiveness of different habitats over time; and

(vii) written responses to address those major issues and comments made by the EIASC Members at the meeting.

26. Mr M Y Wan thanked Members for their comments on the project which would be taken into consideration. The supplementary information requested by Members would be submitted once ready.

[Post meeting note: A Member joined the meeting during the question-and-answer session. The project proponent submitted the required information during 2 to 9 May 2025.]

Internal Discussion Session (Closed-door Session)

Public-private-partnership (PPP)

27. Pointing out that the project would involve PPP, two Members enquired whether a partnership had already been formed between the Government and the project proponent. One of the two Members added that it would be important to know whether the proposed development proposal had obtained the Government's support as it would be key to the sustainability of the proposed mitigation measures in the long run.

28. For the purpose of conservation, Mr Alan Lo indicated that the Government welcomed the proposed project, but a confirmed plan was yet to be worked out subject to lot of details such as the operation of the land, funding requirements in the long run, resources to be provided by the project proponent etc. On the technical aspects concerning environmental and conservation issues, they would be taken care of by EPD and AFCD as the technical authorities. As far as resources were concerned, the Government would discuss the detailed requirements and arrangements with the project proponent. As a general principal for all development projects, apart from one-off capital inputs such as for the creation of new habitats, the project proponents would also need to provide resources for maintenance. Given that the current development project would involve both land of the government and private developers, different government bureau and departments including EEB, LandsD, Planning Department, AFCD and EPD would need to work out details of the relevant issues with the project proponent. From the land administration angle, LandsD would be consulted on the possible options such as short-term tenancy agreement when government land was involved. Understanding the meeting's concern on the funding arrangement and land issues of the project, Mr Lo suggested that Members could focus on the environmental and conservation aspects of the project based on the terms of reference of the EIASC and the ACE.

29. Dr Samuel Chui explained that the project proponent could rent the government land concerned through tenancy agreements and return it to the Government after completion of the relevant works. The land premium involved could be handled according to the Government's established mechanism. Dr Chui added that except for the bridge which had to be built at the early stage for delivering the construction materials, the project proponent could only commence its development works after the completion of wetland compensation to the satisfaction of the relevant government departments. As for the long-term operation of those sites to be returned, the Government would study in details the formal conservation plan and engage relevant financial consultants to work out the resources required before taking up the maintenance responsibility.

Assessment under EIAO Mechanism

30. Mr Gary Tam agreed that the EIASC's discussion should focus on the feasibility of the proposed mitigation measures under the established EIAO mechanism with reference to the standards set out in the TM. He highlighted that relevant authorities had reviewed the EIA report before the current project was considered fit for public inspection. To ensure that the proposed mitigation measures would be implemented, Members could impose conditions and recommendations as appropriate if the EIA report was to be endorsed. As for the sustainability of the habitats concerned, Mr Tam said that a CMP containing details such as the funding arrangements, frequency, location and relevant implementation parameters should be provided by the project proponent before the commencement of the works. He supplemented that DEP would only grant approval for the commencement of the construction works after the relevant technical departments including AFCD were satisfied that the conservation works were implemented and completed as required. He furthered that an environmental committee with the involvement of NGOs or community groups would be a useful mechanism to ensure that the environmental protection or mitigation measures proposed by the project proponent would be updated timely.

31. Mr Alfred Wong added that the information contained in the CMP would provide basis for the calculation and vetting of the cost required for long-term maintenance of the habitats. Subject to the feasibility and financial viability of the measures proposed in the CMP, the Government would consider taking up the site for conservation management in the long run. With the experience of the Long Valley project which had adopted the conservation before development approach, Mr Wong said that the project proponent should demonstrate the effectiveness of the proposed conservation work.

32. A Member enquired whether the current CMP included in the EIA report was considered acceptable by the Government. Another Member also asked how the commencement time of the construction works and conservation works would be determined. Mr Gary Tam indicated that the CMP was a requirement stated in the Study Brief of the project and the current version was considered acceptable at the present stage given that details on the land arrangements and resources involved were yet to be available. As some project milestones such as the time required for land acquisition could not be determined, Mr Tam indicated that it would be more important to ensure the proposed measures in the CMP were completed to the satisfaction of the Government before the commencement of construction works from the EIAO perspective. He said that a condition could be imposed for the project proponent to submit an updated CMP with the required details for approval by the government departments concerned before the commencement of construction works.

33. To address a Member's concern on the location of the development site, the Chairman remarked that the TPB had agreed with the site selection as it was the farthest away from the Ramsar Site and the reedbed concerned would be

compensated. He added that the project proponent had reduced the development footprint and the EIASC should decide whether to approve the EIA report prepared on such basis.

34. Dr Samuel Chui reminded that the EIASC's focus should be on whether the EIA report had attained the requirements of the TM and Study Brief and whether the supplementary information including clarifications and responses to public comments could justify the proposed arrangements for the project. He opined that the project proponent should provide the information as requested by the EIASC and take into account various factors such as the breeding and roosting seasons of birds in the site when they adjust their project schedule.

35. The Chairman advised Members that the EIASC could make one of the following recommendations to the ACE on the EIA report –

(i) endorse the EIA report without condition; or
(ii) endorse the EIA report with condition(s) and/or recommendation(s); or
(iii) reject the EIA report and inform the project proponent of the right to go to the full Council.

If the EIASC could not reach a consensus during the meeting, it might –

(i) ask for a 2nd submission to the EIASC; or
(ii) defer the decision to the full Council and highlight issues or reasons for not reaching a consensus for the full Council's deliberation.

36. Members acknowledged that the project would be a good initiative for wetland conservation and for improving the current condition in LC. Subject to the additional information to be submitted by the project proponent under para. 25 above, Members supported the endorsement of the EIA report with conditions and recommendations. The project proponent team would be invited to attend the subsequent ACE meeting to present and explain the project details to the full Council.

Conditions and Recommendations

37. In the light of the discussions made during the meeting, the following conditions and recommendations were proposed by the EIASC –

(a) Conditions

The Project Proponent should –

(i) ensure no construction works at the residential development be allowed prior to the completion of wetland enhancement works at the proposed LCNR and Nam Sang Wai Wetland Enhancement Area (NSW WEA). The Project Proponent should seek the approval from DEP, in consultation with the AFCD, on the completion of the LCNR and NSW WEA;

(ii) in consultation with AFCD, prepare an updated CMP for the proposed LCNR and NSW WEA. The CMP should provide the design and implementation details of enhancement measures and the long-term management of wetlands within the LCNR and NSW WEA, including the associated management and monitoring requirements (e.g. location, frequency and parameters), the implementation schedule, the financial and land arrangement, and the management agent. The CMP should be submitted to the DEP for approval at least one month before the commencement of construction of the LCNR and NSW WEA;

(iii) in consultation with AFCD, submit a Bird-friendly Design Guideline for buildings within the Project area to DEP for approval; and

(iv) set up an Environmental Advisory Group (EAG) to monitor the environmental aspects of the construction and establishment of the LCNR and NSW WEA. Membership of the EAG should comprise stakeholders with an interest / background in environmental and ecological issues.

(b) Recommendations

The Project Proponent was recommended to –

(i) explore the feasibility of biomass management by reusing and recycling of the fallen trees and removed vegetations;

(ii) explore ways to achieve carbon neutrality in the Project;

(iii) explore the feasibility to adopt green building design in the Project; and

(iv) devise specific and effective measures, such as prohibiting the use of flood lights, directing outdoor lighting away from sensitive receivers, and avoiding the setting up of outdoor light emitting display panels to minimise disturbance to wildlife during construction and operation phases.

[Post meeting notes: The draft conditions and recommendations were circulated to Members for comment before the meeting.]

EIA Subcommittee Secretariat
May 2025