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ACE-EIA Paper 2/2025
For advice on 14 April 2025

Environmental Impact Assessment Ordinance (Cap. 499)
Environmental Impact Assessment Report

**Proposed Comprehensive Development with Wetland Enhancement
(CDWE) at Nam Sang Wai and Lut Chau**

PURPOSE

This paper presents the key findings and recommendations of the Environmental Impact Assessment (EIA) report on “Proposed Comprehensive Development with Wetland Enhancement (CDWE) at Nam Sang Wai and Lut Chau” (“the Project”) submitted under Section 6(2) of the Environmental Impact Assessment Ordinance (EIAO) (Application No. EIA-310/2024). The Nam Sang Wai Development Company Limited (“the Applicant”) and its consultants will present the report at the meeting of the EIA Subcommittee.

ADVICE SOUGHT

2. Members’ views are sought on the findings and recommendations of the EIA report. The Director of Environmental Protection (DEP) will take into account the comments from the public and the Advisory Council on the Environment (ACE) in deciding whether or not to approve the EIA report under Section 8(3) of the EIAO.

BACKGROUND

3. The project site comprises two separate areas at Nam Sang Wai (NSW) and Lut Chau (LC). The LC site is zoned as “Site of Special Scientific Interest (1)” (“SSSI(1)”) under the approved Mai Po and Fairview Park Outline Zoning Plan (OZP), while the NSW site is zoned as “Other Specified Uses” annotated “Comprehensive Development and Wetland Enhancement Area 1” (“OU(CDWEA1)”) under the Approved NSW OZP. Although the sites fall under different OZPs, both require that any development within the NSW site must be developed together with the LC site in a comprehensive and integrated manner.

4. The Chief Executive's 2022 Policy Address proposed developing a Wetland Conservation Parks (WCPs) System to enhance conservation of Deep Bay wetlands and increase environmental capacity for Northern Metropolis development. The Project is located within the “Area for Potential Inclusion” for the proposed Nam Sang Wai WCP under AFCD’s “Strategic Feasibility Study on Development of Wetland Conservation Parks System” Report released in October 2024 (“the Feasibility Study Report”). The Feasibility Study Report points out that the WCPs System involves significant amount of private land and resources involved in its resumption, and there is a need for the Government to explore other feasible means of land acquisition apart from land resumption, and the Public-Private Partnership Scheme under the New Nature Conservation Policy is one of the alternative means to be further explored. The wetland conservation measures put forth in the Project are largely consistent with the Nam Sang Wai WCP’s aims and objectives stipulated in the Feasibility Study Report, and is expected to contribute to the wetland ecosystem of the Inner Deep Bay region and be in line with the proposed development of WCPs System. As the Government is actively pursuing the development of the Sam Po Shue WCP first, further detailed studies regarding the Nam Sang Wai WCP will be conducted in due course.

5. The Applicant submitted the EIA report for the Project under Section 6 of the EIAO. DEP, in consultation with relevant authorities, considered that the EIA report met the requirements in the EIA Study Brief and the Technical Memorandum on EIA Process (TM), allowing for public inspection under Section 7(4) of the EIAO.

NEED FOR THE PROJECT

6. Implementation of the Project would enhance the wetland ecosystem in the Inner Deep Bay region by preserving and enhancing wetland area in NSW and LC.

DESCRIPTION OF THE PROJECT

7. The project site covers a total area of approximately 177.3 hectares (ha) (121.9 ha in NSW and 55.4 ha in LC). The project includes the following major components as shown in Figure 1: -

- (i) Development Site (about 11.6 ha) in the southern portion of NSW area comprising 140 three-storey houses and 28 apartment buildings (19 to 25 storeys) providing 2,500 units with a design population of 6,500, and ancillary facilities (e.g. clubhouse, commercial centre, car park, sewage pumping station, elderly centre etc.);
- (ii) Managed wetland of about 154.4 ha including a Nature Reserve (NR) of about 55.4 ha in LC and a Wetland Enhancement Area (WEA) of about 99 ha in NSW;

- (iii) A Public Park and a Visitor Centre in the southern portion of NSW; and
 - (iv) A connecting bridge providing access to the Development Site from Yuen Long Industrial Estate.
8. The Project is located within Deep Bay Buffer Zone 2, constituting a Designated Project (DP) under Item P.1, Part 1, Schedule 2 of the EIAO, i.e. a residential development or recreational development, other than New Territories exempted houses, within Deep Bay Buffer Zone 1 or 2.

ENVIRONMENTAL BENEFITS

9. The EIA report concludes that the construction and operation of the Project will fully comply with the EIAO requirements. Through preserving and enhancing wetland area in NSW and LC, the Project is expected to yield several environmental benefits, including: -

(i) **Synergistic Effect on Conservation of Inner Deep Bay Wetland Ecosystem**

The project will create 154.4 ha of enhanced wetland in the Inner Deep Bay Region, equivalent to approximately 72% of the area of Biodiversity Management Zones in Mai Po Nature Reserve (MPNR) area. The proposed Lut Chau Nature Reserve (LCNR) will establish an ecological linkage with MPNR for synergistic effect. The proposed wetland enhancement works are expected to further enhance biodiversity in the Inner Deep Bay wetland ecosystem.

(ii) **Promotion of Sustainable Fisheries**

Implementation of fishpond enhancement works and management measures will enable environmentally sustainable operation of fishponds in LCNR and NSW WEA. The overall aquaculture environment and fisheries resources quality will be significantly improved. Together with comprehensive wildlife management measures, the Project will significantly improve the overall fisheries environment of LC and NSW.

(iii) **Promotion of Education on Nature Conservation**

The open space in NSW will be converted into a public park with amenities combining environmental education, leisure, and recreational elements to facilitate public educational activities, group activities, and bird watching, promoting ecotourism and nature conservation education.

CONSIDERATION OF ALTERNATIVE OPTIONS

10. The EIA report indicates that the development plan underwent significant modifications between 1993 and 2015, for instance a reduction in its development footprint while enhancing wetland conservation efforts. The initial proposal for

1993-1994 encompassed 98.3 ha designated for residential units and a golf course, leaving only 41 ha allocated for wetlands. By 2012, the revised alternative scheme sought to reduce the development area to 40 ha and expand wetland areas to 127.7 ha. The 2015 plan further decreased the development footprint to 11.6 ha, while increasing wetland areas to 154.4 ha. This plan ultimately received approval from the Town Planning Appeal Board in 2021, representing the development option adopted in this EIA. According to the Applicant, it would strike a balance between residential requirements and wetland conservation, thereby potentially contributing to the Deep Bay wetland ecosystems. Furthermore, the proposed development option avoids direct impacts on habitats of species of conservation significance, including Great Cormorant and Mai Po Bent-winged Firefly (MPBWF), while minimising disturbances to the surrounding wetland areas.

SPECIFIC ENVIRONMENTAL ASPECTS TO HIGHLIGHT

Ecological Impacts

Wetland habitat

11. In terms of the change in ecological value as detailed in Paragraph 12 - 13, the project will result in:

- (a) the upgrading of 41 ha of wetland from “High” ecological value to “Very High” ecological value;
- (b) the creation of 8.4 ha of wetland with “Very High” ecological value;
- (c) the creation of 9.2 ha of wetland with “High to Very High” ecological value;
- (d) the upgrading 1.6 ha of wetland from “Moderate to High” ecological value to “High” ecological value;
- (e) the loss of 3.2 ha of wetland with “High” ecological value; and
- (f) the loss of 7.5 ha of wetland with “Moderate to High” ecological value.

12. With the enhancement and active management of 154.4 ha of habitat in LCNR and NSW WEA will support larger populations of fauna of conservation importance. The increase in ecological value out-weights the reduction of ecological value in the site. Major enhancement measures include:

- (i) Converting 8.2 ha of fishpond (of “High” ecological value) in LCNR to reedbed (of “Very High” ecological value) to compensate for the loss of 6.2 ha of reedbed (of “High” ecological value) at the development site;
- (ii) Converting 5.1 ha of fishpond (of “High” ecological value) in LCNR to shallow tidal pond (of “High to Very High” ecological value) to be operated similarly to Gei Wai in MPNR;
- (iii) Converting 4.1 ha of fishpond (of “High” ecological value) in LCNR to lily pond of “High to Very High” ecological value;

(iv) Converting 7.8 ha of unwanted and invasive Typha marshes (of “Low” ecological value) into reedbed (of “Very High” ecological value) and fishponds (of “High” ecological value); and

(v) Merging fishponds at NSW WEA and LCNR to provide larger open water habitat and reprofiling fishponds to enhance the ecological value and create suitable bird foraging habitat.

13. Table 1 shows the change in important habitats and their ecological value. Overall wetland function will be enhanced by creating and actively managing larger area of wetland habitats for higher ecological value.

Table 1 - Change in important habitats and their ecological value

Habitat	Current Area (ha)	Ecological value	Area after Project Implementation (ha)	Ecological value	Change
Reedbed	41	High	49.4	Very High	+8.4
Lilypond	0	N/A	4.1	High to Very High	+4.1
Shallow Tidal Pond	0	N/A	5.1	High to Very High	+5.1
Fishpond (active)	51.6	High	48.4	High	-3.2
Fishpond (inactive)	6.5	Moderate to High	0	N/A	-6.5
Open Water	2.6	Moderate to High	1.6	High	-1

14. The proposed wetland enhancement works for the Project, including fishpond re-profiling and enhancement, creation and active management of shallow tidal ponds, and restoration of reedbed, have been successfully implemented at Hong Kong Wetland Park, Lok Ma Chau Ecological Enhancement Area (LMC EEA), and MPNR. These precedents demonstrate the feasibility of the proposed habitat creation, modification, and enhancement works within the Hong Kong context. The function and capacity of all retained pond habitats in NSW WEA and LCNR are to be enhanced significantly, ensuring no net loss in overall wetland function. With LMC EEA having achieved an enhancement factor of five times through similar measures, it is concluded that the proposed wetland enhancement works would maintain wetland function and capacity of the NSW and LC site. These enhancements works will be completed before construction begins at the development site to minimise impacts from wetland loss.

Faunas

15. As the project site falls within ecologically sensitive areas, disturbance to fauna of conservation importance using wetland habitat in NSW during construction

and operation is anticipated, in particular for Great Cormorant and MPBWF.

16. To minimise disturbance during construction, works at the development site will be divided into three phases. No night-time construction activities will occur, and piling will be limited to daytime hours (09:00-16:00) during the dry season (October to April) to avoid disturbing roosting Cormorants. Night-time security lighting during construction will be minimised and directed away from wetland areas.

17. The development site design avoids direct impact and minimises disturbance to these species through: -

- (i) avoiding Great Cormorant roosting sites at the Eucalyptus trees and mangrove habitat for MPBWF in NSW;
- (ii) minimising light impacts on the MPBWF by designing external lighting to emit longer wavelengths, ensuring residential towers have no windows facing the Shan Pui River, and installing perimeter planting for shielding; and
- (iii) configuring development to avoid disrupting bird flight paths.

Long-term Conservation Management

18. The proponent proposed to surrender the conservation portions (i.e. LCNR and NSW WEA) and provide a lump sum financial contribution to the Government for proactive management and long-term conservation of the 154-ha of habitats in LCNR and NSW WEA under the Public-Private Partnership Scheme of New Nature Conservation Policy. Long-term management of LCNR and NSW WEA is detailed in the Conservation and Management Plan in the EIA report, with ecological monitoring to monitor the effectiveness of the proposed mitigation measures.

Fisheries

19. Approximately 20 ha of active fishponds in LC will be lost due to conversion to the managed wetlands, while no active fishpond will be lost due to the development site. To compensate, about 10.75 ha of inactive/abandoned ponds in NSW will resume fisheries operation. Table 2 shows the change in fishpond area in LC and NSW. Overall, approximately 9.25 ha of active fishponds will be permanently lost from the Project. The overall fisheries impact from loss of active aquaculture is considered “Slight” in the Hong Kong context.

Table 2 - Change in area of fishpond

Location	LC	NSW	Total
Current active fishpond (ha)	36	14.8	50.8
Active fishpond under current proposal (ha)	16	25.55	41.55

Change	-20	+10.75	-9.25
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20. To minimise fisheries impacts, all retained/resumed fishponds will continue traditional pond culture in a modified form aligned with conservation objectives of the future NSW WEA and LCNR. Major improvements in the aquaculture environment will result from implementing these measures and removing illegal activities and human disturbance.

Sewerage/Water Quality

21. Sewage generated by the development site will be discharged to public sewerage. Blue-green infrastructure measures (e.g. bioswales and permeable paving) will be implemented to reduce potential surface runoff pollution. No adverse water quality impact is expected during operation.

22. During construction, recommended mitigation measures for controlling construction site runoff include using sandbags to isolate the ponds during construction, dewatering of ponds before reprofiling works by pumping water to surrounding ponds for temporary storage, and in heavy rainfall, pumping surplus water to sedimentation/storage facility to settle the suspended solids before discharge to surrounding ponds.

Landscape and Visual

23. Approximately 1,000 trees will be affected, none as Old and Valuable Trees or of particular interest. Over half of the affected trees are invasive species, so their removal would enhance local ecology. Approximately 2,180 new trees will be planted within the project site as compensation, more than double of the number affected.

Other Environmental Aspects

24. Other environmental impacts including air quality, noise, waste management, land contamination and cultural heritage are relatively minor and have been addressed in the EIA report. With the implementation of the recommended mitigation measures, the Project will comply with the relevant requirements of the EIA Study Brief and TM.

ENVIRONMENTAL MONITORING AND AUDIT

25. The EIA report includes an Environmental Monitoring and Audit (EM&A) Manual recommending an EM&A programme during the construction and operation phases. Key recommended EM&A requirements cover ecology and water quality.

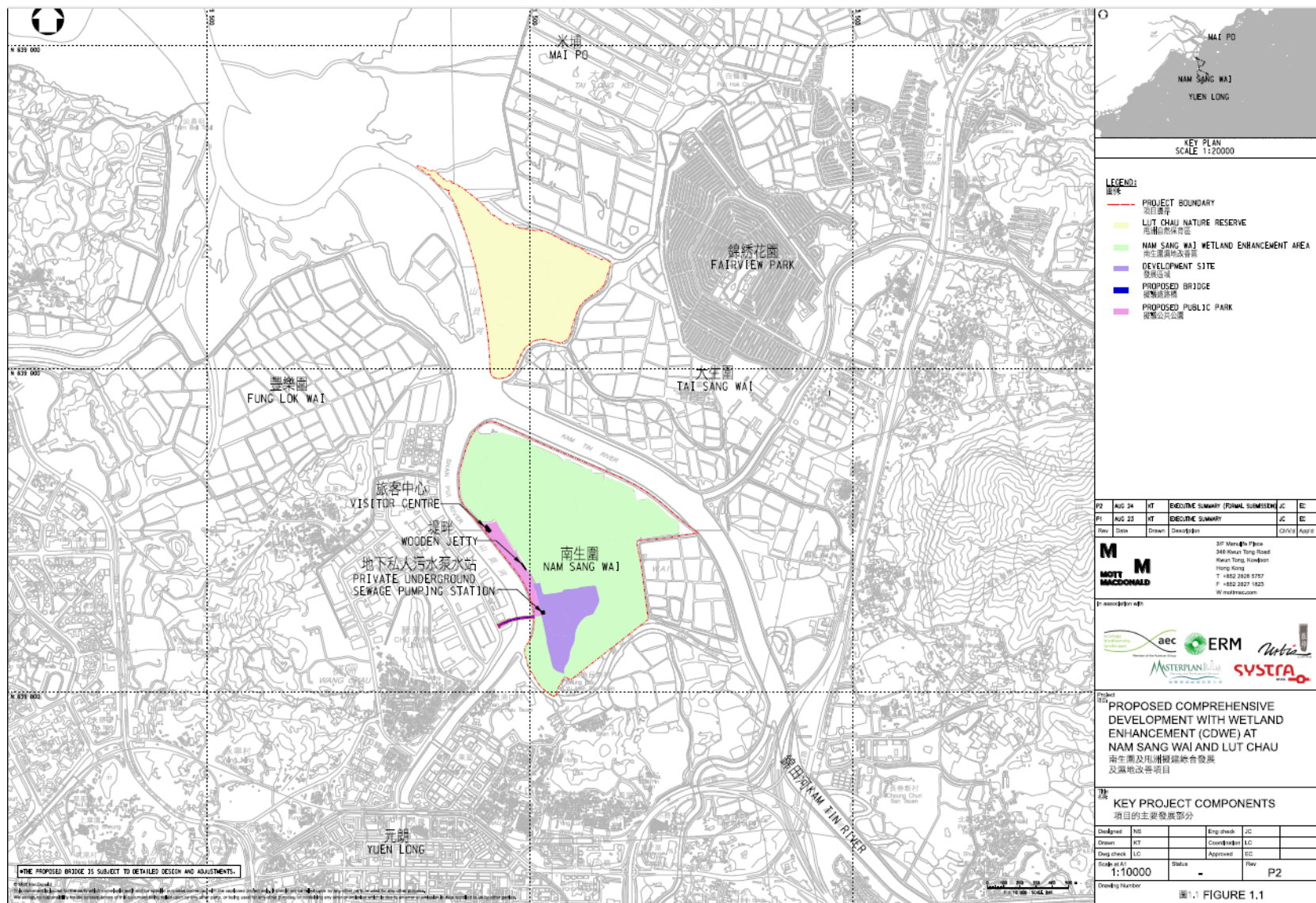
PUBLIC CONSULTATION

26. The Applicant has made the EIA report, EM&A Manual and Executive Summary available for public inspection from 21 February 2025 to 22 March 2025. A summary of all public comments received during the public inspection period and a gist of the main concerns raised in the public comments will be provided separately.

April 2025

Environmental Assessment Division

Environmental Protection Department



Project Title:

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

Figure 1

Project Layout Plan

[Remarks: This figure is prepared based on Figure 1.1 of the EIA Executive Summary]

EIA Application No.:

EIA - 310/2024

