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ACE-EIA Paper 2 /2026
For advice on 29 April 2026

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

Development of the Loop¹ – Eastern Connection Road

PURPOSE

This paper presents the key findings and recommendations of the Environmental Impact Assessment (EIA) report for the “Development of the Loop – Eastern Connection Road” (“the Project”) submitted under Section 6(2) of the Environmental Impact Assessment Ordinance (EIAO) (Application No. EIA-320/2025). The Civil Engineering and Development Department (CEDD) (“the Applicant”) and their consultant will present the EIA 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 comments from the public and the Advisory Council on the Environment in deciding whether or not to approve the EIA report under Section 8(3) of the EIAO.

BACKGROUND

3. The development of the Loop was one of the ten major infrastructure projects announced in the Chief Executive’s 2007-08 Policy Address to foster economic growth. The Project, namely the Eastern Connection Road (ECR), will connect the eastern part of the Loop to the Kwu Tung North New Development Area (KTN NDA) via the Ma Tso Lung (MTL) area, serving as a key transport linkage

¹ The Lok Ma Chau Loop

between these two major development nodes under the Northern Metropolis development strategy. The alignment of ECR follows the existing Border Road near Tse Koo Hang through modification and widening to minimise habitat loss.

4. The ECR was originally assessed in the approved EIA report for the “Development of Lok Ma Chau Loop (LMCL)” (EIAO Register No. AEIAR-176/2013) in 2013. CEDD subsequently put the construction of the ECR on hold due to changes in planning circumstances. Nevertheless, full ecological compensation for the entire LMCL project, including the habitat loss attributable to the ECR, Western Connection Road (WCR) and Direct Link, had already been implemented. Following the approval of LMCL EIA report, approximately 10 hectares (ha) of compensatory wetland habitat (i.e. Off-site Wetland Compensation Areas (OWCAs)) for the ECR have been created under the LMCL project since 2022, well in advance of the construction of the Project.

5. In light of evolving planning circumstances, CEDD plans to take forward the Project and considers it timely to submit a fresh EIA for the ECR. The Applicant submitted the EIA report on 15 December 2025 for approval under the EIAO. The DEP, after taking advice from the relevant authorities, considered that the EIA report has met the requirements of the EIA Study Brief of the Project (No. ESB-375/2025) and the Technical Memorandum on EIA Process (TM), for the purpose of its exhibition for public inspection under Section 7(4) of the EIAO.

NEED FOR THE PROJECT

6. The WCR, constructed under the “Development of LMCL” project which commenced in July 2021, is currently the only external transport link connecting the Loop to the wider road network. Upon implementation of Phase 2 development of the Loop, the WCR is expected to operate at or above capacity, resulting in traffic congestion, reduced vehicle speeds, and increased vehicular emissions. The ECR is therefore essential to support Phase 2 development by providing an alternative route to distribute traffic more evenly, enhancing connectivity between the Loop, KTN NDA, and the wider New Territories north, and reinforcing the Loop’s strategic role as an international innovation and technology hub within the Greater Bay Area.

DESCRIPTION OF THE PROJECT

7. The Project comprises the construction and operation of an approximately 2.5 km long, single four-lane two-way carriageway, consisting of depressed road, underpass, at-grade road, and viaduct sections. The Project layout plan is shown in **Figure 1**. Construction is scheduled to commence in the first or second quarter of 2027 with completion targeted in the fourth quarter of 2031.

8. The Project constitutes the following designated project items under Part I, Schedule 2 of the EIAO:

- (i) Item A.9² – A carriageway for motor vehicles fully enclosed by decking above and by structure on the sides for about 800 m long;
- (ii) Item I.1(b)³ – A drainage channel or river training and diversion works located within 300 m from the nearest boundary of an existing conservation area; and
- (iii) Item Q.1⁴ – Earthworks within a conservation area.

ENVIRONMENTAL BENEFITS

9. The EIA report concludes that both the construction and operation of the Project will be fully compliant with the EIAO requirements with no adverse residual environmental impacts anticipated. Key environmental benefits of the Project include:

(i) **Incorporation of Environmentally Friendly Designs**

The Project adopts a continuous depressed road and underpass design, avoiding permanent above-ground structures within the Ecological Area, bird flight corridor, and fishponds. Compared with the original open sunken road design assessed in the approved LMCL EIA, the current design reduces total affected wetland habitats by over 46% (from 3.94 ha to 2.09 ha). Permanent direct impacts on high-value pond habitats are largely avoided, with affected pond area reduced by over 87% (from 1.99 ha to 0.25 ha). Natural ventilation through rooftop openings on the underpass further eliminates the need for mechanical ventilation buildings, reducing energy consumption, carbon emissions, noise, and visual impact.

(ii) **Enhancement of Biodiversity**

The required compensatory wetlands for the Project were established in 2022 under the LMCL project as OWCA. Following their establishment, the number of recorded avifauna species within the OWCA increased from 70 to 149 compared with the pre-establishment baseline. The Project also provides opportunities for further on-site wetland enhancement upon completion of the ECR, including pond reprofiling, creation of habitat islands, access control, and managed pond drain down, thereby permanently improving habitat quality within the Deep Bay Wetland System. More details at paragraphs 15 to 19.

² A.9, Part I, Schedule 2 of the EIAO – “A carriageway for motor vehicles fully enclosed by decking above and by structure on the sides for more than 100 m.”.

³ Item I.1(b), Part I, Schedule 2 of the EIAO – “A drainage channel or river training and diversion works... (b) located less than 300 m from the nearest boundary of an existing or planned... (vii) conservation area.”.

⁴ Item Q.1, Part I, Schedule 2 of the EIAO – “All projects involving earthworks... partly or wholly in a conservation area...”.

(iii) **Enhancement of Traffic Connectivity**

The ECR will share the traffic demand currently borne solely by the WCR. The expanded transport network will help reduce peak-hour congestion and minimise associated air and noise impacts on sensitive receivers along existing road corridors.

CONSIDERATION OF ALTERNATIVE OPTIONS

10. The EIA has evaluated alternative alignment options, design configurations, construction methods, and sequencing arrangements to avoid and minimise potential environmental impacts. The key approaches are summarised below.

Avoidance of Impacts

- (i) Avoiding permanent above-ground encroachment into the established Ecological Area and existing fishponds through the adoption of a depressed road and underpass design;
- (ii) Avoiding encroachment into the MTL Stream and the villages of Shun Yee San Tsuen and MTL San Tsuen by revising sections of the alignment from at-grade to viaduct; and
- (iii) Avoiding fixed plant noise, energy consumption, and visual obstruction to bird flight corridors by adopting natural ventilation via rooftop openings instead of mechanical ventilation buildings for the underpass.

Minimisation of Impacts

- (i) Phasing construction works by sections (see **Figure 1**), with works in Section 2 commencing only after habitat reinstatement in Section 1 is completed, ensuring that areas of intact habitat are maintained at all times. To maintain flow of water and animal movements in the Lok Ma Chau (LMC) Meander, construction works will be further divided such that cofferdams will only block half of the LMC Meander at any one time;
- (ii) Following the alignment of the existing Border Road near Tse Koo Hang to minimise habitat loss;
- (iii) Providing temporary above-ground wildlife crossings during construction and permanent wildlife underpasses with solid parapets during operation to reduce habitat fragmentation and wildlife mortality;
- (iv) Implementing wetland enhancement measures within existing fishponds during construction to minimise habitat loss; and

- (v) Minimising construction air and noise impacts, as well as construction and demolition waste generation, by adopting precast concrete segments for viaduct decking.

SPECIFIC ENVIRONMENTAL ASPECTS TO HIGHLIGHT

Ecology

11. Ecological baseline surveys were conducted over a 12-month period covering both dry and wet seasons, in accordance with the requirements of the EIA Study Brief and TM.

12. A total of 13 habitat types were identified within the assessment area and Project Site, including wetlands, watercourses, grasslands, woodlands, agricultural land, and developed areas. The baseline surveys have identified species of conservation importance, including 15 avifauna species (e.g. Chinese Pond Heron, White-throated Kingfisher), 8 mammal species (e.g. Leopard Cat, Small Indian Civet), 4 herpetofauna species, 1 butterfly species, and 4 flora species (e.g. *Aquilaria sinensis*). While the Eurasian Otter was not directly sighted during ecological surveys, its known presence in the vicinity of the LMC Meander and Ecological Area was duly considered in the EIA. Potential impacts, including habitat fragmentation, bird collision risk, and wildlife injury or mortality, will be minimised through the underpass design and associated mitigation measures.

13. Different ecological mitigation measures are recommended for species with different mobility. For high-mobility species such as avifauna, construction time restrictions (no use of Powered Mechanical Equipment before 0900h and after 1700h unless fully enclosed) near sensitive wetland areas and night roosts, and height restrictions for above-ground structures (no structures or plant exceeding 15 m above existing ground level), will be implemented. For low-mobility species such as freshwater crabs, herpetofauna, and nesting avifauna, pre-construction surveys, translocation, and nest control measures will be undertaken to avoid direct injury to breeding pairs, chicks, and eggs. For non-flying wildlife, temporary aboveground wildlife crossings, permanent wildlife underpasses, and solid parapets will be installed to reduce vehicle collisions and roadkill incidents. For construction and operational lighting, unnecessary illumination will be eliminated, lights oriented downward, and light sources with narrower spectral wavelengths adopted to minimise disturbance to sensitive wetland habitats. With these mitigation measures in place, no unacceptable ecological impact is anticipated.

14. To compensate for the loss of woodland habitat due to the Project, the EIA has recommended compensatory woodland of 1.68 ha. There is no egretty within the project boundary.⁵

⁵ The Ho Sheung Heung Egretty is about 1.3 km away.

Wetland Compensation

15. To localise and limit ecological impacts during construction, works are divided into phases. The habitats requiring compensation are pond and freshwater wetland. The corresponding areas required for compensation under different project phases are shown in Table 1 below.

Table 1 - Wetland Compensation for ECR

| Phase | Areas Required for Compensation (ha) | Total Established OWCA for ECR (ha) since 2022 |
|--|--|---|
| Construction Phase 1 (Works for Sections 1 and 3) | Temporary habitat loss: - 5.89 (Pond) - 3.15 (Other freshwater wetland) | 6.13 (Pond) 3.89 (Other freshwater wetland) Total: 10.02 |
| Construction Phase 2 (Works for Sections 2 and 3) | Temporary habitat loss: - 4.04 (Pond) - 2.53 (Other freshwater wetland) | |
| Operational Phase | Permanent habitat loss: - 0.25 (Pond) - 1.84 (Other freshwater wetland) | |

Remarks: Compensation requirement for each phase is considered separately and not cumulative. Temporary habitat loss during construction will be reinstated by the end of each construction phase. The permanent loss is only from the operational phase which is 2.09 ha in total that would be compensated by the OWCA for ECR.

16. The required compensatory wetland was established in 2022 as OWCA's under the LMCL project with a total area of about 10 ha, prior to the commencement of the Project. The established OWCA's available for the Project comprise approximately 6.1 ha of pond and 3.9 ha of other freshwater wetland, more than sufficient to cover the size of the impacted areas for compensation in each construction and operational phase. For the long-term permanent impact, the total area required for compensation is approximately 2 ha, well below the established OWCA available for the Project of about 10 ha. Affected compensatory wetlands within the Ecological Area will be reinstated and maintained.

Wetland Enhancement

17. In addition to the wetland compensation requirements, CEDD would take this development opportunity to improve the ecology in the area. The Project provides enhancement opportunities for further on-site wetland enhancement works upon completion of the ECR on the affected fishponds. The enhancement measures will be implemented for the existing three fishponds over 4 ha in area within the Project boundary (see **Figure 2**) to improve the existing relatively poor habitat condition. The measures include (i) pond reprofiling; (ii) creating habitat islands; (iii) provision of fencing or controlling access; (iv) provision of temporary stocking

ponds; and (v) managing pond drain down. These enhancements will provide permanently improved habitat quality and functionality for wetland-associated avifauna, non-avifauna species of conservation importance, and Eurasian Otter through better water management and more diverse, shallower sloping edge conditions suitable for foraging. These enhanced ponds, together with the adjacent habitats at the LMC Meander and the Ecological Area, will greatly improve the ecological connectivity of the area.

18. To further minimise the habitat fragmentation and ecological disturbance, the Project would implement (i) aboveground wildlife crossing during construction phase; and (ii) wildlife underpasses with solid parapets during operation phase, to maintain movement corridors for species such as the Eurasian Otter and Leopard Cat between habitat patches on both sides of the road alignment so as to minimise the risk of vehicle collisions and roadkill incidents.

19. In sum, the compensation (through the established wetlands since 2022) and enhancement measures would support species and key ecological functions to ensure ecological performance and connectivity. No unacceptable ecological impact is anticipated.

Air Quality

20. For operational air quality impact, a quantitative cumulative assessment was conducted covering vehicular emissions from existing and planned open roads, emissions from the existing minibus termini and the planned public transport interchange, and industrial and portal emissions within the assessment area. The EIA report demonstrates that cumulative nitrogen dioxide, respirable suspended particulates, and fine suspended particulates concentrations at all identified air sensitive receivers would comply with the respective Air Quality Objectives. No adverse air quality impact is anticipated.

Noise

21. For operational noise impact, a quantitative road traffic noise assessment was conducted. With implementation of the recommended mitigation measures including low noise road surfacing and provision of acoustic windows and acoustic balconies at planned noise sensitive receivers, no adverse road traffic noise impact is anticipated.

Water Quality

22. The key water quality issue would be the potential water quality impact during excavation works for underpass across LMC Meander and Ecological Area. The EIA has recommended that cofferdam with silt curtain enclosure should be used for excavation works in the LMC Meander and Ecological Area to mitigate potential seepage and runoff impact during excavation works. Besides, only single cofferdam would be installed at each stage during the construction of underpass road across the

LMC Meander. The EIA has also recommended to establish an emergency response plan to minimise the potential water quality impacts to the water catchments in the vicinity of the Project in the event of inclement weather and emergency. Overall, with the implementation of the recommended measures, no adverse water quality impact is anticipated.

Visual impact

23. The Project has adopted natural ventilation opening design for the proposed underpass to avoid visual impact associated with ventilation buildings. With the implementation of mitigation measures including aesthetic pleasing treatment of viaduct, landscape treatment on slope and buffer screening plant, no unacceptable residual visual impact is anticipated.

Other Environmental Aspects

24. The potential impacts of other environmental aspects including waste management, land contamination, fisheries, landscape, and cultural heritage have been assessed in the EIA report. With the implementation of recommended mitigation measures, the Project will comply with the relevant requirements of the EIA Study Brief and TM and no adverse environmental impact is anticipated.

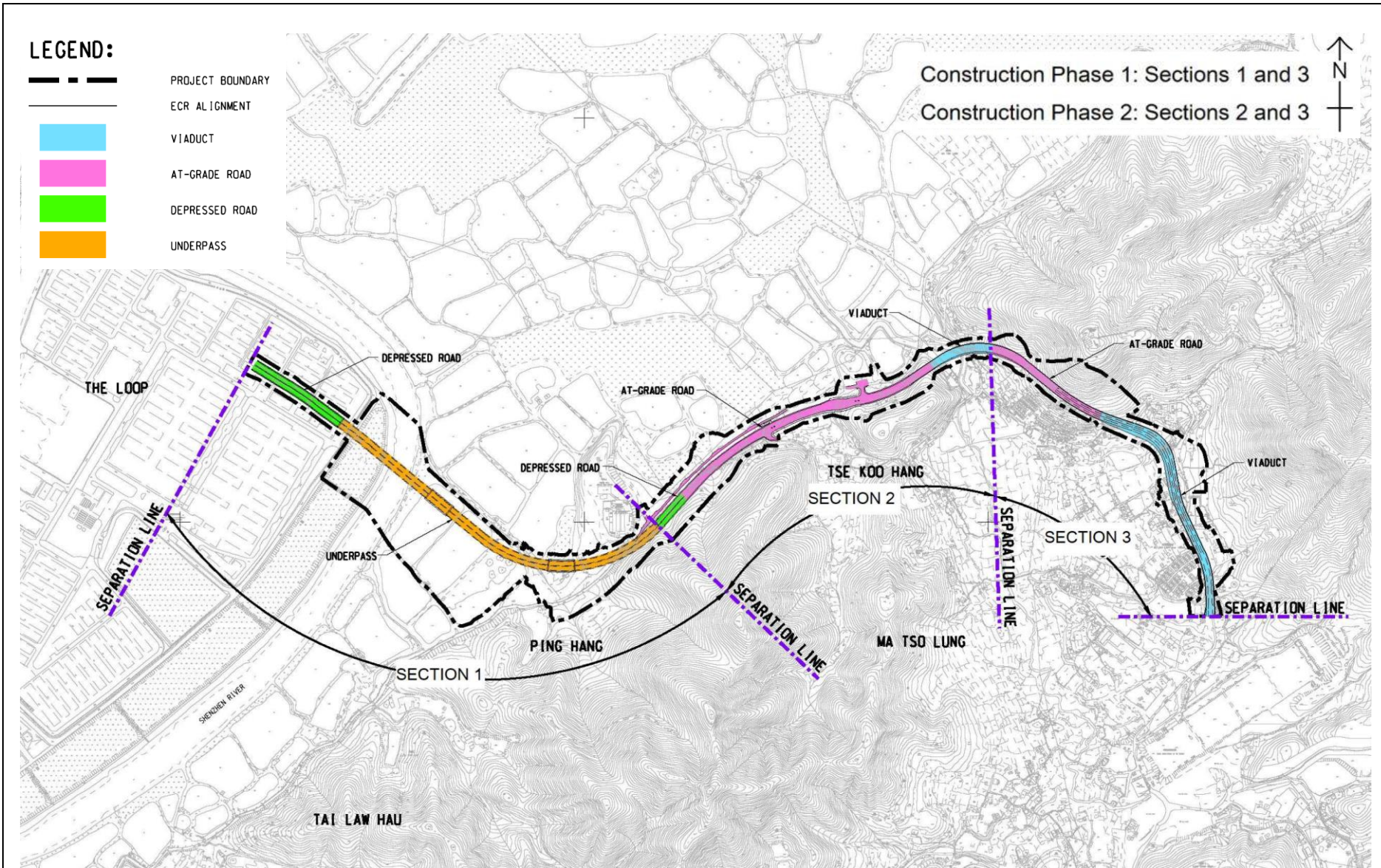
ENVIRONMENTAL MONITORING AND AUDIT


25. The EIA report has included an Environmental Monitoring and Audit (EM&A) Manual, which recommends an EM&A programme during the construction and operational phases of the Project, including construction monitoring and site audit for air quality, noise, water quality, waste management, land contamination, ecology, fisheries, landscape and visual, and cultural heritage issues. Also, the operational phase EM&A programme has covered noise, water quality, ecology and landscape and visual aspects.

PUBLIC CONSULTATION

26. The Applicant has made the EIA report, EM&A Manual and Executive Summary available for public inspection under the EIAO from 26 February 2026 to 27 March 2026. A summary of all the public comments received by the Environmental Protection Department during the public inspection period and a gist of the main concerns raised in the public comments will be provided separately.

April 2026
Environmental Assessment Division
Environmental Protection Department



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|-----------------------|---|-------------------------|---|
| Project Title: | Development of the Loop – Eastern Connection Road | Application No.: |  |
| Figure 1 | Project Layout Plan [Figure prepared based on Figure 2.8 of the EIA report] | EIA-320/2025 | |

