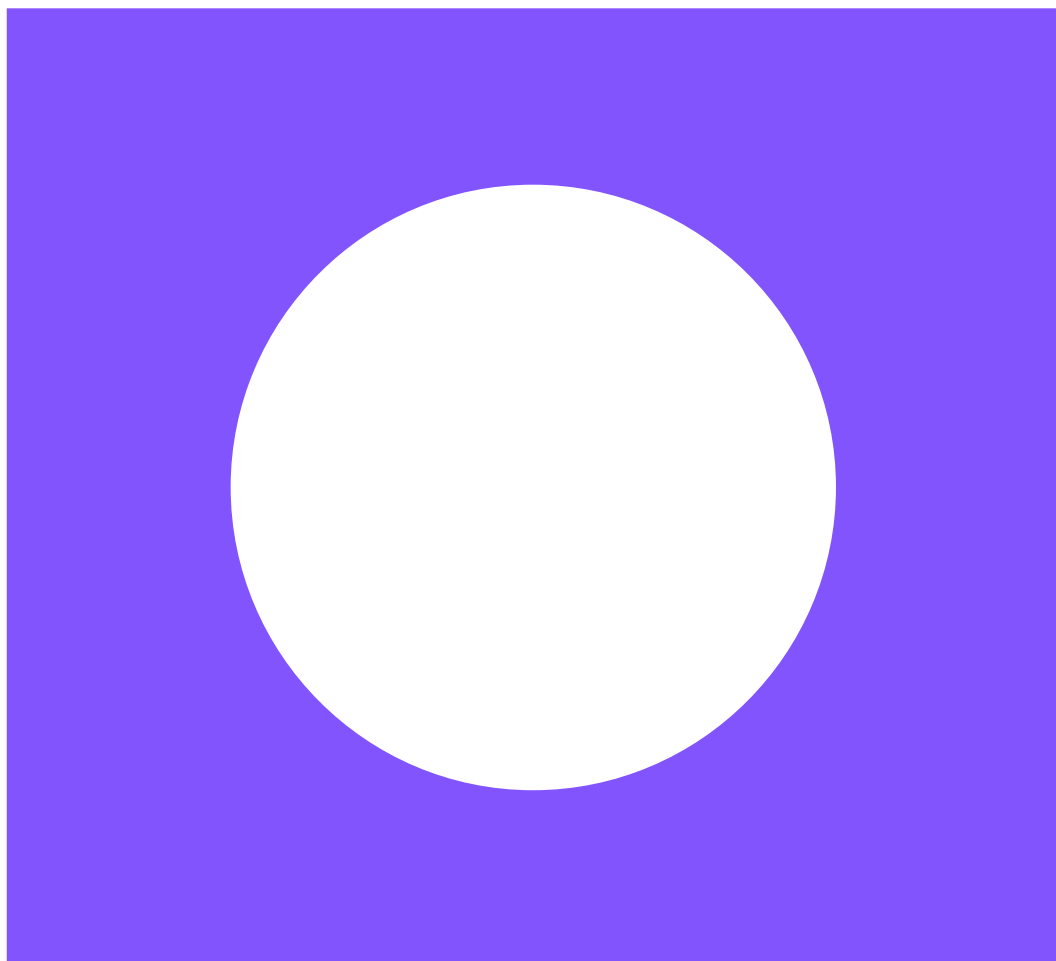




Marina Development at Ex-Lamma Quarry Area at Sok Kwu Wan, Lamma Island

Project Profile

August 2026

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1 Basic Information

1.1 Project Title

- 1.1.1 Marina Development at Ex-Lamma Quarry Area at Sok Kwu Wan, Lamma Island (hereinafter referred to as “the Project”).

1.2 Purpose and Nature of the Project

- 1.2.1 The Government of the Hong Kong Special Administrative Region (“the Government”) is committed to enhancing amenities for the yacht industry and promoting prime yacht tourism. The Chief Executive’s 2024 Policy Address recommended to invite the private sector to construct and operate marinas in various locations including the water body beside the Ex-Lamma Quarry (ELQ) Area that could provide some recreation facilities for the promotion of island tourism. The Chief Executive’s 2025 Policy Address also confirmed the above to support the future development of yacht economy through three projects (i.e., this Project, the Aberdeen Typhoon Shelter expansion, and the Hung Hom Station waterfront projects), providing approximately 600 additional yacht berths¹. It is anticipated that provision of additional yacht berths can drive the development of yacht tourism, promote yacht trading, increase job opportunities from other supporting or related industries, and stimulate high-end consumption from the local, Mainland and overseas markets.
- 1.2.2 In April 2025, the Government invited the market to submit expression of interest (EOI) for Development of the ELQ Area² to garner feedback from the market before finalising the proposed scheme of the development and its requirements³.
- 1.2.3 The Government has taken a step further in demonstrating its support to the yacht industry and potential developers by taking on the statutory environmental impact assessment for proposed marina in the south-west of the ELQ Area presented to interested parties in the EOI briefing session⁴.
- 1.2.4 This Project Profile is prepared for the proposed marina, in providing new berths to support the future development of yacht economy and island tourism.

1.3 Name of Project Proponent

- 1.3.1 The Project Proponent is the South Development and Sustainable Lantau Office (SSLO), the Civil Engineering and Development Department (CEDD) of the Government of the Hong Kong Special Administrative Region.

¹ Development Bureau. September 2025. The Chief Executive’s 2025 Policy Address - Land Development Initiatives. Available at:

<https://www.legco.gov.hk/yr2025/chinese/panels/dev/papers/dev20251003cb1-1453-1-ec.pdf>

² Development Bureau invites market to submit expressions of interest for three island and coastal tourism projects. 2 April 2025. Available at:

<https://www.info.gov.hk/gia/general/202504/02/P2025040200627.htm>

³ The Government has undertaken a review study that has worked out a proposed scheme, setting out Government’s recommendations on the broad direction of development, land use, and development model, as well as suggested parameters for the ELQ Area.

⁴ Development Bureau. April 2025. Development of the Ex-Lamma Quarry Area. Available at:

[https://www.devb.gov.hk/filemanager/en/Content_3/briefing%20session%20ELQ%20-%20ppt%20\(pdf\).pdf](https://www.devb.gov.hk/filemanager/en/Content_3/briefing%20session%20ELQ%20-%20ppt%20(pdf).pdf)

1.4 Location and Scale of Project and History of the Site

Location and Scale of Project

- 1.4.1 The marina development is proposed within the inner bay of Sok Kwu Wan in the Lamma Island area.
- 1.4.2 The proposed marina development comprises the following marine-side and landside facilities respectively:
1. A marina of approximately 150 to 200 nos. of berths for yachts (ranging from 10 metres to 50 metres in length) with an area of approximately 8 hectares, consisting of:
 - floating walkways
 - floating finger piers and associated structures for vessel mooring
 - guide piles for floating walkways and finger piers
 2. A maximum 3-storey marina supporting facilities at approximately 0.2 hectares in size consisting of:
 - marina club
 - commercial facilities (e.g., retails, food and beverage)
- 1.4.3 The landside facilities are proposed at the northern coast of Sok Kwu Wan, within the ELQ Area, currently leased to the YMCA under Short Term Tenancy (STT).
- 1.4.4 The location and boundary of the Project is shown in **Figure 1.1**.

History of the Site

- 1.4.5 The ELQ Area was established in 1978 for rock extraction and miscellaneous processing and storage. After about 17 years of operation, it was left with steep rock faces that scarred the landscape of the area.
- 1.4.6 A rehabilitation study was carried out for the ELQ Area and endorsed by the Government in 1995, and the proposed rehabilitation works were completed in December 2002, including the formation of a 5-hectare man-made lake north-east to the Project.
- 1.4.7 Since May 2011, the ELQ Area has been leased to the aforementioned YMCA as the environmental education and wildlife activity centre under STT. The site of the marina supporting facilities is located at the south-west side of the ELQ Area.
- 1.4.8 The site of the marina is located at the seafront of the south-west of the ELQ Area within the inner bay of Sok Kwu Wan, where there is no specified use with occasional mooring by pleasure vessels or sampans. In the vicinity of the site, there are an existing jetty unloader dedicated for the cement storage silo, an existing pier for ELQ Area and two existing fish culture zones.

1.5 Number and Type of Designated Project to be Covered by the Project Profile

- 1.5.1 The Project consists of one Designated Project (DP) under Part I, Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO):
- Item O.2 – A marina designed to provide moorings for more than 30 vessels used primarily for pleasure or recreation.

1.6 Name and Telephone Number of Contact Person(s)

1.6.1 All enquiries regarding the Project can be addressed to:

Mr. LAI Tsan Kei, William

Post: Chief Engineer/ South and Sustainable Lantau 6

Address: Civil Engineering and Development Department
South Development and Sustainable Lantau Office
13/F, North Point Government Offices,
333 Java Road, North Point,
Hong Kong

Tel No.: 2195 0856

Fax No.: 2577 5040

Email: wtklai@cedd.gov.hk

2 Outline of Planning and Implementation Programme

2.1 Project Planning and Implementation

- 2.1.1 The Project Proponent has appointed a consultant to undertake the planning and design, including conducting an environmental impact assessment (EIA) study, for the Project. After land sale, the future Developer will be responsible for implementing the proposed works, together with all the environmental mitigation measures, the environmental monitoring and audit requirements as recommended in future EIA study of this Project, in accordance with relevant statutory and land sale requirements.

2.2 Project Timetable

- 2.2.1 It is planned to conduct the EIA study in 2026 for completion in 2027. The construction works of the Project is tentatively scheduled for commencement in 2028 at the earliest.

2.3 Potential Interface with Other Projects

- 2.3.1 Major committed projects in the vicinity which may have potential interface with this project have been identified below.
- Improvement Works at Ap Chau Public Pier, Man Kok Tsui Pier, Peng Chau Public Pier, Sai Wan Jetty, Sok Kwu Wan Pier No. 2 and Tai O Public Pier
- 2.3.2 Other planned developments in the ELQ Area may potentially have interface with the Project.
- 2.3.3 The above are not exhaustive and will be reviewed and updated during the EIA study to ensure all the latest projects available from respective stakeholders are incorporated. Any cumulative impacts from these concurrent projects during both construction and operational phases of the Project would be identified and addressed in the EIA study.

3 Possible Impacts on the Environment

3.1 General

- 3.1.1 Construction of the Project is expected to involve marine-based activity with minor land-based construction activities. Proposed floating finger piers and floating walkways with guide piles will be the main structures formed by floating pontoons. Marine-based construction will only involve marine piling works⁵. Dredging will unlikely be involved for the need of pleasure yacht navigation⁶. The exact construction methods will be confirmed at detailed design stage.
- 3.1.2 The land-based works of this Project will only involve construction of the marina supporting facilities, i.e., a 3-storey structure providing services and commercial facilities.
- 3.1.3 Operation of the Project would involve the use and management of the proposed marina and marina supporting facilities.
- 3.1.4 The potential impacts on the environment which may arise from the construction and operation of the Project are presented in the following sub-sections.

3.2 Air Quality

Construction Phase

- 3.2.1 Potential air quality impacts may include fugitive dust from land-based construction works and exhaust emissions from construction plants, relevant vehicle movement and marine vessel movement, if any. The land-based construction works mainly includes the construction of the marina supporting facilities as discussed in **Section 1.4.2**, which shall be typical building works with shallow foundation construction.
- 3.2.2 For the construction of proposed marina, marine piling works and installation of floating pontoons by barges shall be required, where potential air quality impact such as emission from barges and construction equipment may be produced. There is no potential odour impact anticipated for the marine-based construction works.
- 3.2.3 Cumulative impacts from potential concurrent projects within 500m assessment area during construction stage will be identified and assessed in the EIA study.

Operation Phase

- 3.2.4 Potential air quality impacts may be generated from vessel activities from fuel powered or electric vessels associated with the operation of the proposed marina and potential emissions from induced road traffic, if any. Potential odour impact from the operation of the proposed marina is not anticipated.
- 3.2.5 No emission or odour from the proposed landside supporting facilities is anticipated.
- 3.2.6 Cumulative impacts from potential concurrent projects within 500m assessment area during operation stage such as the water sports and recreational area of the development of ELQ Area shall be identified and assessed in the EIA study to ensure compliance with relevant standards.

⁵ Extraction of marine sediments, is involved inside the pre-installed piles in water, which is localised and small in scale.

⁶ The existing water depth at the site of the proposed marina of about 7m or above is sufficient for the navigation of pleasure yachts.

3.3 Noise

Construction Phase

- 3.3.1 Potential construction noise impacts may arise from the use of powered mechanical equipment (PME) for land-based works and any marine plants that may be used. The extent and significance of construction noise impact would depend on the scale of construction works, number of PME in operation, duration of construction works, etc. Mitigation measures could be considered where necessary to minimise the noise impact during construction phase. With proper implementation of mitigation measures, adverse construction noise impact is not expected. The potential noise impact during the construction phase of the Project would be assessed during the EIA stage to ensure compliance with relevant standards.

Operation Phase

- 3.3.2 Potential noise impacts may be generated from vessel activities associated with the operation of the proposed marina, any fixed plants associated with the proposed land-side marina supporting facilities, and road traffic noise from induced road traffic, if any. Mitigation measures could be considered where necessary to minimise the noise impact during operational phase. The potential noise impact during the operational phase of the Project would be assessed during EIA stage to ensure compliance with relevant standards.
- 3.3.3 Operation of the project will not involve any sound amplification systems such as public address (PA)/ loudspeaker systems and open-air entertainment activities.

3.4 Water Quality

Construction Phase

- 3.4.1 Construction site runoff and drainage, debris, refuse and accidental spillage of chemicals, and sewage from on-site construction workforce will be potential sources of water quality impacts.
- 3.4.2 The Project will involve marine-based construction works, which shall be enclosed by silt curtains to minimise suspended solids (SS) dispersion. Therefore, no adverse impact on water quality is anticipated.

Operation Phase

- 3.4.3 Water quality impacts may arise from vessels operations and surface runoff, and effluent from the sewage generated from the operation of the proposed marina supporting facilities. Potential water quality impacts from vessels operations may arise from propeller wash, propeller walk and manoeuvring during berthing and departure. These activities may lead to sediment disturbance resulting in localised sediments resuspension, temporary increases in suspended solids and turbidity. Considering the scale of the proposed marina, significant bay-wide change to tidal circulation is not expected. Potential impacts on hydrodynamic are expected to be localised, within the pontoons, berthed yachts and immediate marine waters.
- 3.4.4 Yachts and vessels are required to comply with the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78), Merchant Shipping (Prevention and Control of Pollution) Ordinance (Cap. 413), and Pesticides Ordinance (Cap. 133). As such, potential water quality impacts associated with releasing of antifouling agents are not expected.
- 3.4.5 Effluent from the proposed marina supporting facilities will be conveyed to the development areas within the ELQ for treatment.

3.5 Waste Management

Construction Phase

- 3.5.1 Land-based construction works may generate construction and demolition materials, general refuse and chemical waste. Minimal marine sediment and floating refuse may be resulted from marine-based construction works of the guide piles or other essential foundations. Good site practice shall be adopted to avoid or minimise potential environmental impact associated with handling, collection and disposal of wastes.

Operation Phase

- 3.5.2 Waste generation is expected to be limited during operation and will primarily relate to floating refuse and general refuse from users of the proposed marina and marina supporting facilities. The amount of municipal solid waste from the Project is expected to be small given the short stay activity of users and limited number of staff. With the implementation of good site practices, adverse environmental impact from waste management perspective is not anticipated.

3.6 Ecology

Construction Phase

- 3.6.1 The terrestrial area of the Project is man-made habitat from previous rehabilitation project. As mentioned in **Section 1.4**, the Project will only involve a small area of developed land for providing supporting facilities to the marina. As land-based construction works is limited and located in area of very low ecological value, significant terrestrial ecological impacts are not expected.
- 3.6.2 The marine area of the Project includes a small area of natural habitats comprising soft shore and hard rocky shore which are commonly found in Hong Kong. Based on preliminary desktop review, the ecological value of the intertidal habitats (i.e., natural rocky, soft shore and artificial shore) and subtidal soft bottom habitat is generally low, with no record of rare intertidal and subtidal soft bottom communities. As such, potential impacts to intertidal and subtidal soft bottom habitats are not expected to be significant.
- 3.6.3 Both hard and soft coral communities have been recorded in the vicinity of Sok Kwu Wan. The coral species identified are generally common and widely distributed in Hong Kong, and most colonies are small in size. The ecological value of the coral communities is preliminarily considered to be low to moderate. Guide piles to support the floating pontoons might lead to minor loss of seabed. Therefore, with the careful planning and design of the proposed marina and construction methods, including routes of construction barges, significant adverse impacts to the coral communities would not be expected.
- 3.6.4 Potential indirect disturbance impacts on marine ecological resources in general may arise from marine works, including installation of floating pontoons, increased marine traffic, as well as potential deterioration of water quality due to construction runoff, which may affect intertidal habitats, coral communities and other benthic organisms. Nevertheless, with the implementation of suitable mitigation measures as discussed in **Section 5.7**, potential impacts are expected to be minimal.
- 3.6.5 During construction phase, construction vessels are expected to travel to and from the Project area via the existing principal fairways and traffic separation schemes from the north and north-east, all of which are of high marine traffic with little, or even no record of porpoise occurrence. As discussed in **Section 4**, Sok Kwu Wan is not a key habitat or regular feeding ground for Finless Porpoise (*Neophocaena phocaenoides*), though its historical occurrence to the south and northeast of Lamma Island cannot completely rule out the possibility of its presence. Yet, the

higher detections of Finless Porpoises at night with low density sightings during day, i.e., transect surveys undertaken as part of the long-term monitoring programme, may suggest that areas with high marine traffic during day-time is avoided by the species. Construction activities of this Project are expected to be carried out during day-time only and therefore potential impacts on Finless Porpoise, which may occur during night-time, from construction vessels and marine-based construction works are expected to be negligible. Furthermore, as demonstrated in the long-term monitoring programme, Finless Porpoises are more commonly associated with open southern and eastern waters of Hong Kong and mostly found in more oceanic environment, where construction vessels are not expected to be travelling through.

Operation Phase

- 3.6.6 Due to the nearby fish culture zone and various marine traffic (e.g., ferries, small sampans) operating in the area, vessels travelling in/ approaching Sok Kwu Wan are already subjected to some restrictions and operation expectations. Restrictions and operation expectations include safe speed requirement, avoid/ slow or no-wake wash, 5 knots restricted speed, etc. Furthermore, leisure bays are designated speed-restricted zones with a typical 5 knots speed limit, which may potentially be imposed on the proposed marina. These restrictions and operation expectations are expected to continue to apply in Sok Kwu Wan, as well as to the proposed marina. As mentioned above, Finless Porpoise may occur during night-time to avoid day-time high marine traffic activities. To prevent, avoid and minimise potential impacts on Finless Porpoise from underwater noise disturbance, if any, the Project may consider to implement operation restrictions, as further discussed in **Section 5.7**. With the implementation of aforementioned measures and arrangements, potential impacts are expected to be minimal.
- 3.6.7 Potential indirect impacts on other marine ecological resources may arise from potential changes in water quality due to increase in mooring activities and disturbance impact due to increase in marine traffic. There will be minor direct habitat loss due to the installation of berthing facilities along the artificial shoreline and soft-bottom seabed. Nevertheless, with the implementation of suitable mitigation measures as discussed in **Section 5.7**, potential impacts are expected to be minimal.

3.7 Fisheries

- 3.7.1 There are two Fish Culture Zones (FCZ) in the vicinity of the Project, namely Sok Kwu Wan (SKW) FCZ and Lo Tik Wan (LTW) FCZ. These FCZ are considered as fisheries sensitive receivers. The nearest distance between the Project and the SKW FCZ is approximately 45m, while LTW FCZ is more than 1km from the boundary of the Project and separated by Luk Chau to the north. The Project is within important spawning ground and nursery area of commercial fisheries resources, with fishing operations dominated by sampan. SKW FCZ also supports leisure fishing activities.
- 3.7.2 According to the Port Survey 2021 published by the Agriculture, Fisheries and Conservation Department (AFCD), the level of fishing operations in the vicinity of the Project is moderate, while fisheries production in the relevant area is low.
- 3.7.3 Eight artificial reef (AR) units in the form of concrete-coated fibreglass unidirectional biofilter were deployed by AFCD at LTW FCZ in 2008 to enhance habitat quality and marine resources^{7,8}. No construction and operation activities will take place within the LTW FCZ, including where the ARs have been deployed. As such, direct impacts on the LTW FCZ and the ARs are not expected.

⁷ Agriculture, Fisheries and Conservation Department.2023. Lo Tik Wan Fish Culture Zone. Available at: https://www.afcd.gov.hk/english/fisheries/ar/deploy_of_ar/ltw_ar.html

⁸ Agriculture, Fisheries and Conservation Department.2023. Types of Artificial Reef. Available at: https://www.afcd.gov.hk/english/fisheries/ar/type_of_ar.html

Construction Phase

- 3.7.4 During construction phase, potential indirect impacts on mariculture activities, fisheries activities and resources may arise from construction site runoff, which may lead to potential deterioration of water quality. Construction marine vessels may cause disturbances to fishing and mariculture activities due to the increased marine traffic. However, given the area is dominated by sampan operations which are highly flexible, they are considered to be less sensitive to disturbance from working vessels. As such, the potential disturbance from increased marine traffic on fishing operation is considered to be low.
- 3.7.5 As dredging works will be unlikely to be involved and the construction of guide piles will only produce limited vibration, no significant adverse underwater noise/ vibration impacts are anticipated. Considering the size of the proposed marina and that piles construction is localised, potential impacts on capture fisheries resources, if any, are only temporary and negligible.

Operation Phase

- 3.7.6 During operation phase, potential impacts on fisheries activities and resources may arise from increased marine traffic for the marina. Indirect impacts associated with potential changes in water quality and disturbance from increased marine traffic may affect fisheries resources and fish culture activities. Nevertheless, with the implementation of suitable mitigation measures as discussed in **Section 5.8**, potential impacts are expected to be minimal.

3.8 Land Contamination

- 3.8.1 Site investigation works were carried out in the ELQ Area under the Agreement No. CE33/2011 (CE) - Planning and Engineering Study on Future Land Use at Ex-Lamma Quarry Area at Sok Kwu Wan, Lamma Island - Feasibility Study from 2012 to 2015, which covered the land area of the proposed marina supporting facilities.
- 3.8.2 Based on the results of the aforementioned site investigation, exceedance of the relevant risk-based remediation goals (RBRG) was not identified. As mentioned in **Section 1.4.7**, the ELQ Area has been leased to the YMCA under STT since May 2011. As it can be seen from the historical aerial photos in **Appendix A**, and confirmed by site reconnaissance on 11 June 2026, the ELQ Area remained as the YMCA Lamma Island Outdoor Centre from 2014 till today. Hence, potential land contamination issues associated with the aforementioned land areas are not anticipated.

3.9 Landscape and Visual

- 3.9.1 According to information from the Hong Kong Environmental Database (HKED) of Environmental Protection Department (EPD) during the preparation of this Project Profile, there are two landscapes with distinctive character in the vicinity of the Project, i.e., the coastal protection area in the north-east and the conservation area near the Lo So Shing Village in the south-west. Both landscapes with distinctive character, as defined in Annex 18 of the EIAO-TM, are beyond 300m from the boundary of the Project and will not be subjected to direct impacts. There is no landscape with distinct resources, as defined in Annex 18 of the EIAO-TM, within the boundary of the Project and within 100m from the boundary of the Project.

Operation Phase

- 3.9.2 Potential visual impact associated with operation phase of the Project will be mainly the permanent visual impacts from the proposed marina and marina supporting facilities, which are mainly low-rise structures. The potential visual impacts are anticipated to be limited.

3.10 Cultural Heritage

Terrestrial Archaeology

- 3.10.1 As the nearest Site of Archaeological Interest is over 500m from the proposed marina, construction and operational impacts are not anticipated. Archaeological impact from the construction and operation of the landside marina supporting facilities is not anticipated.

Built Heritage

- 3.10.2 According to the latest List of new items for grading assessment with assessment results⁹, the nearest graded historic building is the No. 7 Luk Chau Village (Serial No. N65), a Grade 3 historic building confirmed on 12 December 2024. No declared monuments, proposed monuments, graded historic buildings, new items for grading assessment and government historic sites identified by Antiquities and Monuments Office are within or in the vicinity of the boundary of the Project. Potential impacts during construction and operation by the Project are not anticipated.

Marine Archaeology

- 3.10.3 According to the Marine Archaeological Investigation (MAI) Final Report for the development of ELQ Area agreed by the Antiquities and Monument Office (AMO) in August 2022, no archaeological remain was identified¹⁰. The area of the MAI mainly covered the coastal zone and shallow waters near the proposed marina supporting facilities. Findings from the geophysical survey and diver survey in 2022 revealed an enormous volume of modern objects in the area.
- 3.10.4 As mentioned in **Section 1.4**, significant disturbance to seabed is not expected with the adoption of floating pontoon where disturbance, if any, would be negligible and limited to the area where the piles are. Nonetheless, as the Project will involve marine works, in prior consultation with AMO, a supplementary MAI may be carried out according to the Guidelines for MAI, if necessary.

3.11 Hazard to Life

- 3.11.1 According to EPD's Risk Management of Potentially Hazardous Installation (PHIs), none of the 16 existing PHIs are located on Lamma Island, nor does the Island fall within any PHI consultation zone or safety zone. As such, construction workers and future users of the proposed marina are not expected to be at risk.
- 3.11.2 During construction and operation, the Project is not expected to store any of the hazardous materials in quantities equal to or greater than the specified threshold quantity in Section 4, Chapter 12 of the Hong Kong Planning Standards and Guidelines. The hazard to life is considered insignificant. As such, the Project will not be a PHI under either construction or operation phase and no individuals and communities will be at risk.

⁹ Antiquities and Monuments Office.2026.List of new items for grading assessment with assessment results (as at 11 June 2026). Available at:
https://www.aab.gov.hk/filemanager/aab/en/content_29/list_new_items_assessed.pdf

¹⁰ Civil Engineering and Development Department.2022.Agreement No. CE 33/2011 (CE) Planning and Engineering Study on Future Land Use at ex-Lamma Quarry Area at Sok Kwu Wan, Lamma Island Feasibility Study – Marine Archaeological Investigation Final Report 2022.

4 Major Elements of the Surrounding Environment

4.1 General

4.1.1 The proposed marine supporting facilities falls within the Outline Zoning Plan (OZP) No. S/I-LI/11, within the area zoned “Undetermined”. The major existing and planned sensitive receivers and parts of the natural environment that might be affected by the Project are summarised in **Table 4.1**.

Table 4.1: Summary of Major Existing and Planned Sensitive Receivers and Parts of the Natural Environment that Might be Affected by the Project

Environmental Aspects	Major Sensitive Receivers/ Sensitive Parts of Natural Environment	
Air ¹	- Sok Kwu Wan village (residential) - Sok Kwu Wan Playground - Planned water sports and recreation area - Lamma Island Youth Hostel	- Sok Kwu Wan Family Medicine Clinic - Other planned developments within ELQ Area (e.g., residentials, hotels, recreation areas) - Lo So Shing Village
Noise	- Sok Kwu Wan village - Other planned developments within the ELQ Area that may be considered as noise sensitive receivers according to Annexes 5 and 13 of the EIAO-TM (e.g., residentials)	
Water	- Sok Kwu Wan Fish Culture Zone - Planned water sports and recreation area	Coastal protection area
Ecology	- Soft shore - Hard and soft coral communities - Finless Porpoise (<i>Neophocaena phocaenoides</i>)²	<i>Branchiostoma</i> spp. (Amphioxus)
Landscape and visual	<u>Viewers</u> - Users of planned water sports and recreation area - Residents in Sok Kwu Wan and Ta Shui Wan areas - Fish farmers - Hikers along Lamma Island Family Walk	<u>Landscape Character Area and Resources</u> <u>Landscape Character</u> - Former Sok Kwu Wan Quarry Coastal Landscape - Sok Kwu Wan Coastal Bay Landscape - Ridgelines of Ling Kok Shan <u>Landscape Resources</u> - Plantations - Artificial shore - Seawater Body
	Visual Character: predominantly coastal and rural in nature. Open water forms the principal visual element with sheltered coastal waters (i.e., the semi-inner bay of Sok Kwu Wan), fish culture activities, small-scale pier and waterfront facilities, village development along the Sok Kwu Wan shoreline opposite to the Project, ridgeline of Ling Kok Shan and steep vegetated hillsides in the background. The natural landform and rehabilitated ELQ Area creates a visually enclosed setting and provides a continuous vegetated background to the waterfront.	

Environmental Aspects	Major Sensitive Receivers/ Sensitive Parts of Natural Environment
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Fisheries	Sok Kwu Wan Fish Culture Zone
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Notes:

1. The current occupant of part of the development of ELQ Area, YMCA Lamma Island Outdoor Centre, will cease operation at the time for construction and operation of the proposed marina, therefore shall not be identified as a sensitive receiver.

2. According to the long-term monitoring programme on marine mammals in Hong Kong, there has been very low density sightings of Finless Porpoises (*Neophocaena phocaenoides*) to the south and northeast of Lamma Island only during winter/ spring from 2018 to March 2022; with a consistently higher detections at night regardless of seasons. No sighting of the species was recorded around Lamma Island and Eastern Lamma waters from April 2022 to March 2023. Nevertheless, Sok Kwu Wan has not been identified as a key habitat or regular feeding ground for the species. Furthermore, Sok Kwu Wan is a semi-enclosed inner bay characterised by shallow waters and intensive marine traffic (e.g., ferries/ kaito operating to/from Central/ Aberdeen and Sok Kwu Wan Pier No. 2). Such conditions are generally considered suboptimal for Finless Porpoises, which are more commonly associated with open southern and eastern waters of Hong Kong and mostly found in more oceanic environment. Moreover, based on information from EPD's HKED, as of July 2026, there is no porpoise occurrence in the vicinity of Project. Above information suggests that Finless Porpoises are unlikely to occur in Sok Kwu Wan.

5 Environmental Protection Measures to be Incorporated in the Design and any Further Environmental Implications

5.1 General

- 5.1.1 The EIA study will assess potential environmental impacts (both cumulative impacts and those arising from the Project) and propose appropriate mitigation measures.
- 5.1.2 Reference would be made to the relevant legislation and other requirements, residual impacts, if any, would be confined to within allowable limits. Environmental monitoring and auditing of potential impacts that may arise from the implementation of the works will be provided for the construction and operation phases. Subject to the findings of the EIA study, mitigation measures that may be incorporated in the design, construction and operation of the Project are further discussed below.

5.2 Air Quality

Construction Phase

- 5.2.1 In order to prevent adverse impacts on air quality, the control measures stipulated in the Air Pollution Control (Construction Dust) Regulations would be implemented wherever applicable to limit the dust emissions from the site. Subject to investigation, mitigation measures, including but not limited to the followings, will be considered during the construction period to minimise impacts on air quality on Air Sensitive Receivers (ASRs):
- Stockpiles of dusty material will not extend beyond site boundaries;
 - In the process of material handling, any material which has the potential to create dust will be treated with water or sprayed with a wetting agent where practicable;
 - Stockpiles of sand and aggregate will be enclosed on three sides and water sprays will be used to dampen stored materials and when receiving raw material;
 - The site will be frequently cleaned and watered to minimise fugitive dust emissions; and
 - Motorised vehicles on the site will be restricted to a maximum speed of 15 km/hr and shall be confined to designated haul routes which will be paved or surfaced with hardcore.
- 5.2.2 Furthermore, requirements stipulated in the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation would also be followed where appropriate to control potential emissions from non-road mobile machinery (NRMM) during construction phase. To minimise the exhaust emissions from NRMMs and marine construction vessels, mitigation measures below shall be considered:
- Connect construction plant and equipment to mains electricity supply and avoid use of diesel generators and diesel-powered equipment as far as practicable;
 - Restrict the use of exempted NRMMs;
 - Deploy electrified NRMMs as far as practicable;
 - Control routing of marine construction vessels to optimise the separation distance from nearby ASRs;
 - Minimise the number of trips of marine construction vessels;

- Vessel engine will be switched off during hotelling;
- Use clean fuel for marine construction vessels as far as practicable; and
- Adopt on-shore power as far as practicable.

5.2.3 Additionally, Air Pollution Control (Fuel Restriction) Regulation would also be followed where all construction plants and equipment requiring fuel combustion will only use compliant low-sulphur fuels in accordance with the Regulation. The following fuels that are permitted under the Regulation shall be used during construction stage:

- Gaseous fuel;
- Conventional solid fuel with a sulphur content not exceeding 1% by weight; and
- Liquid fuel with a sulphur content not exceeding 0.001% by weight and a viscosity not more than 6 centistokes at 40°C, such as Ultra Low Sulphur Diesel (ULSD).

Operation Phase

5.2.4 Subject to investigation, the following measures may be considered to minimise and/or improve air quality during operation phase:

- Adequate buffer distance is recommended to separate the sensitive receivers and emission sources;
- Potential requirements on fuel types and engine idling time of marine vessels using the proposed marina; and
- Should there be any pick-up services for facilitating passengers' access to the proposed marina and supporting facilities, the use of electric vehicles is recommended.

5.3 Noise

Construction Phase

5.3.1 Subject to investigation, the following measures will be considered during construction period to minimise construction noise impacts on sensitive receivers:

- Plant operated on site should be well maintained and serviced regularly;
- Subject to working constraints such as power supply, safety and obstruction of proposed works, mobile plant will be sited as far away from sensitive receivers as practicable;
- Noise activities will be planned and scheduled to be undertaken during appropriate time periods to minimise potential noise impacts to sensitive receivers;
- Quality powered mechanical equipment (QPME) should be used;
- Materials stockpiles and other structures (such as temporary site offices) will be effectively utilised, where possible, to screen noise from construction activities; and
- Noisy plant or processes will be replaced by quieter alternatives where possible. Silencers or mufflers on construction equipment should be utilised and be properly maintained during the construction works.

5.3.2 Where necessary, temporary and movable noise barriers and enclosures will be employed to minimise noise impact to NSRs.

Operation Phase

5.3.3 For the potential impacts arising from marine vessel activities, potential fixed noise, induced road traffic noise, the following mitigation measures would be considered:

- Proper arrangement and operation requirements, such as planning of travelling routes, on vessel activities and users of the proposed marina and supporting facilities; and
- Provisions for careful siting of noisy machinery that may be required at the marina supporting facilities, if any, by use of acoustic louvre or silencer for ventilating system, acoustic door and absorptive wall lining will be considered.

5.4 Water Quality

Construction Phase

5.4.1 In order to prevent adverse water quality impacts, the following general mitigation measures would be put in place.

- Surface run-off from the construction sites will be directed into storm drains via adequately designed wastewater treatment facilities such as sand traps, silt traps and sediment basins. Channels, earth bunds or sand bag barriers will be provided on site to properly direct stormwater to such facilities;
- Provide silt curtains around the works area, if necessary;
- Open stockpiles of materials on site will be avoided or where unavoidable covered with tarpaulin or similar fabric during rainstorms. Measures will be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system;
- Manholes, if any, will always be adequately covered and temporarily sealed so as to prevent construction materials or debris from getting into the drainage system;
- Construction works should be programmed to minimise soil excavation in the wet season (i.e. April to September). If soil excavation cannot be avoided in these months or at any time of year when rainstorms are likely, temporarily exposed slope surfaces should be covered e.g. by tarpaulin, and temporary access roads should be protected by crushed stone or gravel, as excavation proceeds. Intercepting channels should be provided (e.g. along the crest / edge of excavation) to prevent storm run-off from washing across exposed soil surfaces;
- Final earthworks surfaces will be well compacted and hydroseeding following completion to prevent erosion;
- During construction works, proper toilets will be provided for site staff. A licensed contractor will be responsible for appropriate disposal and maintenance of the effluent; and
- All fuel tanks and chemical storage will be sited on sealed areas and provided with locks. The storage areas shall be surrounded by bunds with a capacity appropriately larger than the storage capacity of the largest tank to prevent spilled oil, fuel and chemicals from reaching the receiving waters. Drainage from oil filling points and any areas where fuels and lubricants are used will be connected to storm drains via a petrol interceptor. Potential water quality impacts from land-based activities would be readily mitigated through adopting good site practices as recommended in the Professional Persons Environmental Consultative Committee Practice Note 2/24 "Construction Site Drainage" (ProPECC PN2/24) and the "Recommended Pollution Control Clauses for Construction Contracts" issued by EPD.

Operation Phase

5.4.2 The following general mitigation measures would be considered during further assessment of potential water quality impact:

- Provision of sand/silt and oil/grease traps at suitable locations to prevent ingress of pollutants to the stormwater system;
- Construction of drainage works to prevent increased risk of flooding;
- Prohibition of any in-water hull scraping and sanding; and

- Any cleaning, maintenance and repair of vessels are not allowed.

5.4.3 As all sewage effluent generated from the Project will be conveyed to the development areas within the ELQ for treatment (to be undertaken by future Developer)¹¹, treatment measures are not considered necessary under this Project.

5.5 Waste Implications

Construction Phase

5.5.1 Construction works will generate Construction and Demolition (C&D) materials, chemical waste, general refuse etc. Good site practice shall be adopted to avoid or minimise potential environmental impact associated with handling, collection and disposal of wastes; and all waste will be disposed in accordance with the Waste Disposal Ordinance (Cap. 354). The following measures would be considered to reduce waste generations and the need for off-site disposal:

- All C&D materials will be sorted, re-used and recycled wherever possible;
- Waste haulier should obtain the necessary registration and licences under the Waste Disposal Ordinance and the Waste Disposal (Chemical Waste) (General) Regulation from the Environmental Protection Department;
- Nomination of an approved person, such as site manager, to be responsible for good site practice, arrangements for collection and effective disposal to an appropriate facility, of all waste generated at the site;
- Separation of chemical wastes for special handling and appropriate treatment at a licensed facility;
- A recording system for the volume of wastes generated, recycled and disposed of (including the disposal sites);
- A Waste Management Plan (WMP) shall be prepared and this WMP shall be submitted to the Engineer for approval. The WMP will be prepared in accordance with ETWB TC(W) No. 19/2005 "Environmental Management on Construction Sites";
- Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal;
- Any unused chemicals or those with remaining functional capacity shall be recycled;
- Use of reusable non-timber formwork to reduce the amount of C&D material;
- Proper storage and site practices to minimise the potential for damage or contamination of construction materials;
- While only minimal marine sediment is expected to be generated, relevant guidelines under Section 4.2.1, Chapter 4 of the Project Administration Handbook for Civil Engineering Works (PAH) and Dumping at Sea Ordinance (Cap. 466) will be followed, where applicable;
- Should yard waste be generated from landside construction works, reuse or recycling on-site shall be the primary approach prior to recycling at Y-Park and/or other suitable facilities; and
- Regular inspection and monitoring of floating refuse shall be conducted.

Operation Phase

5.5.2 The following mitigation measures will be considered:

¹¹ Future developer could consider a few compact membrane bio-reactors (MBRs) with on-site small sewage treatment plants within the individual development areas of the ELQ site, and make necessary arrangements on further disposal of the treated effluent, as mentioned in the EOI document for Development of the ELQ Area.

- Lidded bins will be provided, delivered to a central collection point and stored in enclosed containers to prevent odour, windblown litter, vermin, water pollution and visual impact;
- Collection bins for used aluminium cans, wastepaper, plastic bottles and glass bottles are recommended to be provided around the berthing areas; and
- Explore innovative measures to collect floating refuse (e.g., autonomous aquatic drones, sea bins, stationary automated skimmers).

5.6 Land Contamination

- 5.6.1 As potential land contamination issue is not anticipated, mitigation measures are not necessary.

5.7 Ecology

Construction Phase

- 5.7.1 The mitigation measures which would be implemented to minimise air quality, noise and water quality impact could also help reduce potential impacts on marine ecological resources.
- 5.7.2 In relation to marine ecological impacts, the principal of avoidance would be adopted wherever possible. For impact, which is considered unavoidable, further mitigation measures would be considered to minimise the potential marine ecological impacts (e.g., coral translocation, shoreline enhancement, scheduling of construction works, further vessels speed restriction, vessel travel routes), where necessary. Construction method(s) with relatively lower disturbance shall be considered to avoid indirect disturbance. Mitigation measures should be considered to avoid, minimise or mitigate the potential impact to an acceptable level.

Operation Phase

- 5.7.3 Subject to the findings of the marine ecological impacts assessment in the EIA study, the following measures may be explored and proposed, where and as necessary:
- Minimise night-time activities;
 - Proper management of yacht movements into and out of the marina to avoid mass manoeuvring at any given time;
 - Strict implementation of all water quality measures as proposed in **Section 5.4**; and
 - Implementation of all existing restrictions and operation expectations near FCZ, including speed restriction when travelling in/ approaching Sok Kwu Wan.

5.8 Fisheries

Construction Phase

- 5.8.1 In respect of Sok Kwu Wan FCZ, appropriate mitigation measures (e.g., good site practice, water pollution control measures, construction-related vessel management measures, phasing of works programme) would be proposed, where necessary.

Operation Phase

- 5.8.2 Possible disturbance from vessels entering/leaving the Project should be avoided through careful design of traffic routes, which will generally follow the existing routes without adding new routes close to Sok Kwu Wan FCZ. The proposed marina will also provide a buffer distance to avoid direct interface with the FCZ. Water pollution control measures for the operation of the marina should be implemented.

5.9 Cultural Heritage

- 5.9.1 As impacts on terrestrial archaeology and built heritage are not anticipated, mitigation measures will not be required.
- 5.9.2 For marine archaeology, as mentioned in **Section 3.10**, prior consultation with AMO would be undertaken to determine the need for a supplementary MAI, which will be conducted in accordance with the Guidelines for MAI if necessary, including the proposal of mitigation measures subjected to investigation findings.

5.10 Landscape and Visual

Construction Phase

- 5.10.1 During construction phase, the following general mitigation measures will be considered to alleviate the impacts, including, but not limited to:
- Erosion control measures should be implemented for protection of construction works and the landscape if heavy rains occur.

Operation Phase

- 5.10.2 During operation phase, the following general mitigation measures are to be considered, including, but not limited to:
- Greening provision and planting across the marina supporting facilities area; and
 - Potential integration and/or interfacing design with the development of ELQ Area, including exploring the potential for adopting a consistent thematic approach in soft and hard landscape, exploring the feasibility of developing a landscape master/ concept plan and/or treescape strategy specifically for this Project and the development of ELQ Area, etc.

5.11 Possible Severity, Distribution and Duration of Environmental Effects and Further Implications

- 5.11.1 Subject to the findings of assessments, effective control and mitigation measures will be identified to ensure the impacts are within acceptable levels. The possible severity, distribution and duration of environmental effects such as beneficial and adverse effects; short-term and long-term effects; secondary and induced effects; cumulative effects and transboundary effects will be considered and addressed in the EIA, where applicable. Feedback from public received during exhibition of the Project Profile would also be documented in the EIA.

6 Use of Previously Approved EIA Report

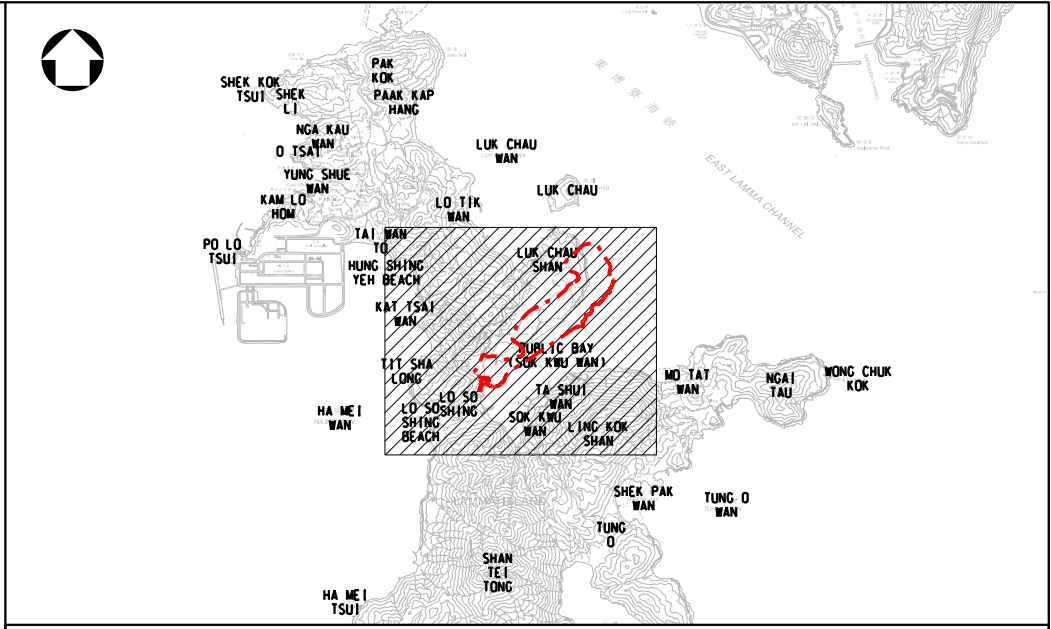
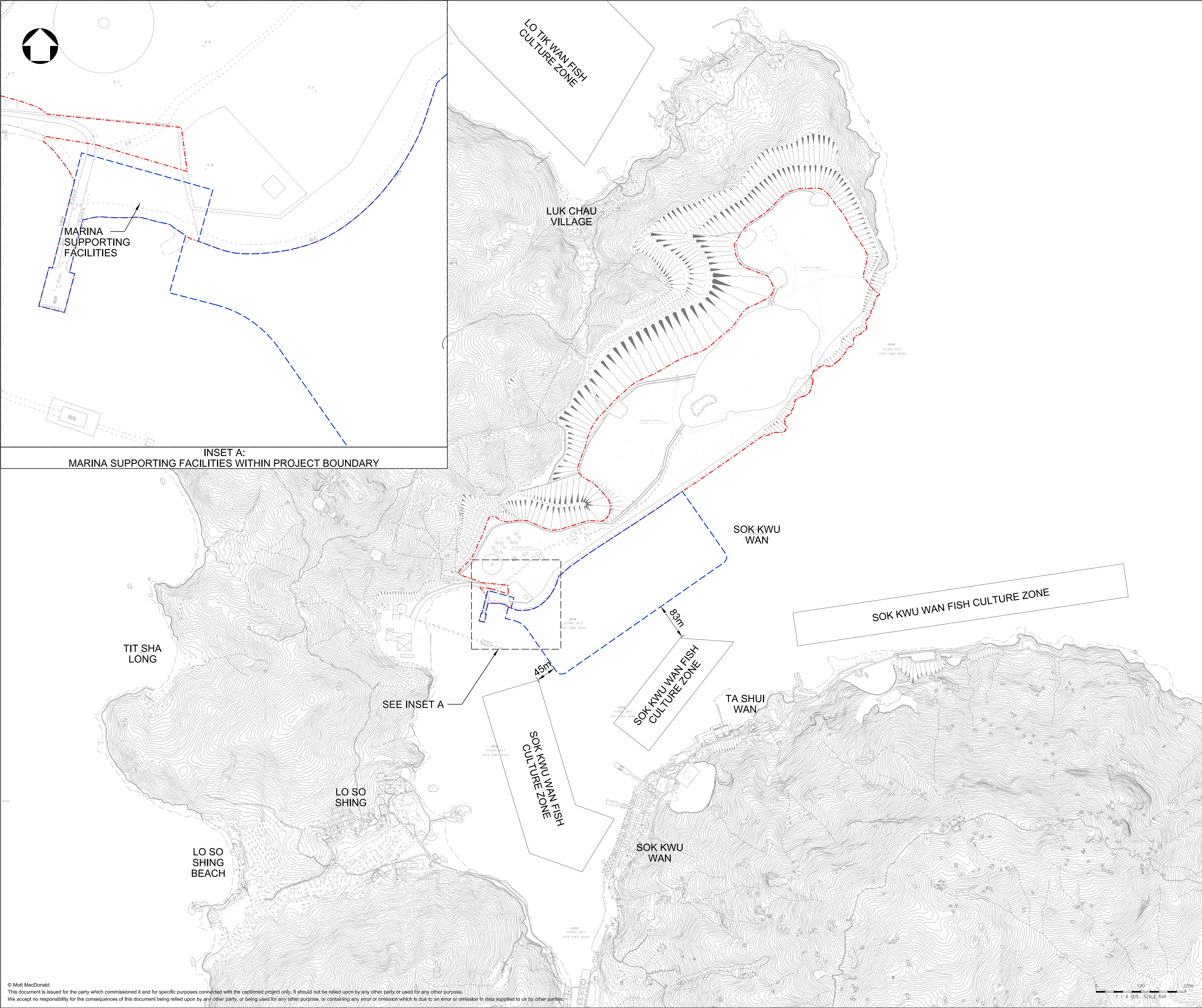
6.1.1 Reference had been made to the approved EIA report listed in **Table 6.1** below during the preparation of this Project Profile.

Table 6.1: Previously Approved EIA Report Referenced

EIAO Register No.	Title	Year	Aspects of Relevance
EIA-022/BC	Lamma Quarry: Casting Basin & Moderate Quarry Extension, Environmental Impact Assessment	1993 ¹	Baseline information (site location), marine operation use, construction dust, marine-related works, water quality (dredging involved)

Notes:
1. The Final Report was issued in May 1993.

Figure



LEGEND:

BOUNDARY OF THE PROJECT

EX-LAMMA QUARRY AREA

FISH CULTURE ZONE

Rev	Date	Drawn	Description	Ch'k'd	App'd

M
MOTT
MACDONALD

3/F Manulife Place
348 Kwun Tong Road
Kwun Tong, Kowloon
Hong Kong
T +852 2828 5757
F +852 2827 1823
W mottmac.com

**CEDD**

CIVIL ENGINEERING
AND DEVELOPMENT
DEPARTMENT

Project

MARINA DEVELOPMENT AT
EX-LAMMA QUARRY AREA
AT SOK KWU WAN, LAMMA ISLAND

Title

LOCATION OF THE PROJECT

Designed	VF		Eng check	VF	
Drawn	TL		Coordination	VF	
Dwg check	VF		Approved	EC	
Scale at A1		Status		Rev	
1:4000		PRE		P1	
Drawing Number		FIGURE 1.1			

Appendix

A.	Historical Aerial Photos	22
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A. Historical Aerial Photos

LEGEND:

 BOUNDARY OF THE PROJECT (DP)

 EX-LAMMA QUARRY DEVELOPMENT AREA

2014



LEGEND:

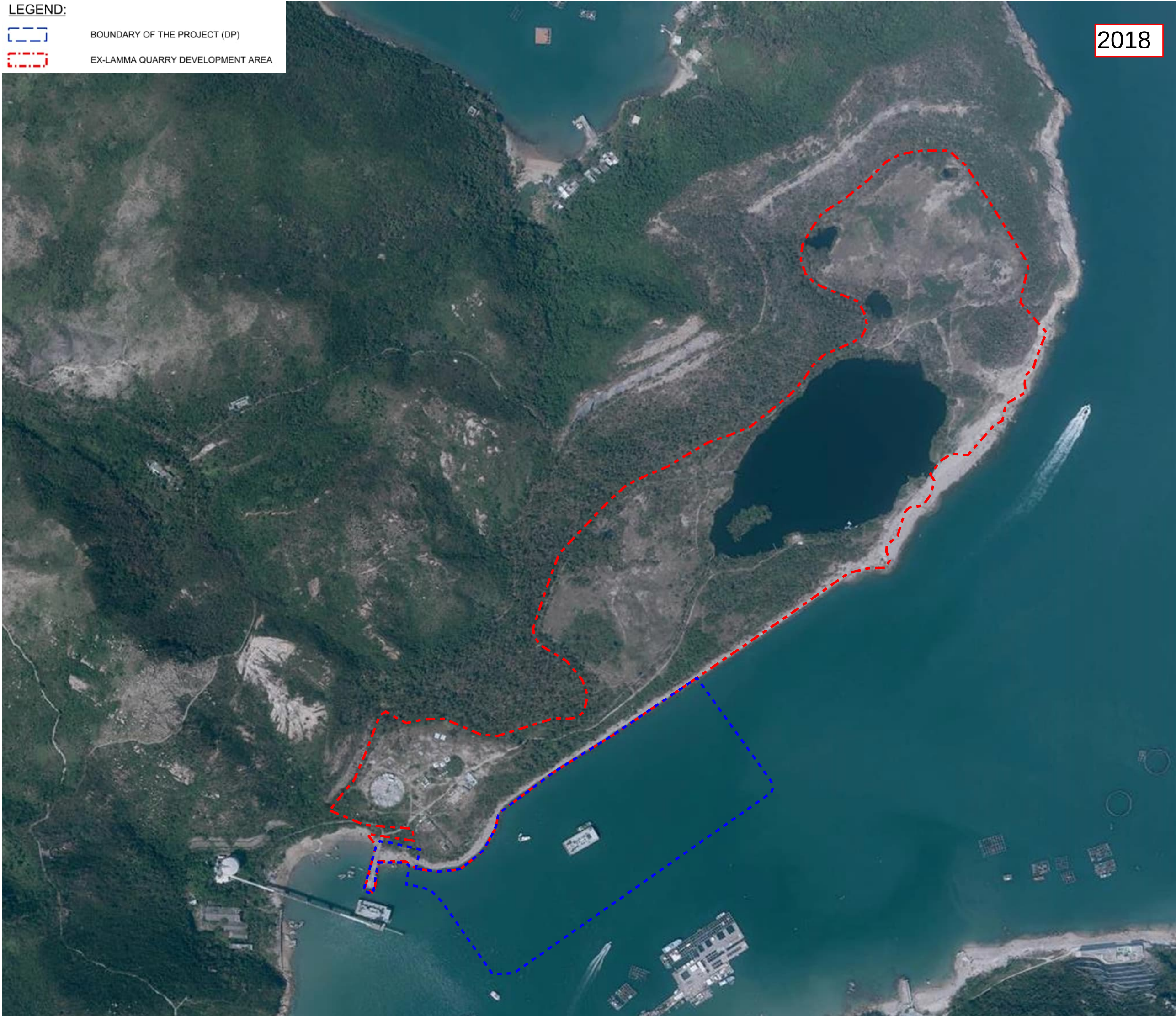


BOUNDARY OF THE PROJECT (DP)



EX-LAMMA QUARRY DEVELOPMENT AREA

2018



LEGEND:



BOUNDARY OF THE PROJECT (DP)



EX-LAMMA QUARRY DEVELOPMENT AREA

2022



LEGEND:



BOUNDARY OF THE PROJECT (DP)



EX-LAMMA QUARRY DEVELOPMENT AREA

2025

