



## **Proposed Alternative Comprehensive Development near Lin Barn Tsuen, Yuen Long, N.T.**

### **Project Profile**

Prepared for:  
**Birkenhead Properties and Investments Limited**

Prepared by  
**ENVIRON Hong Kong Limited**

Date:  
**5 November 2012**

Project Number:  
**HK1100374**

Report No.:  
**R2741\_v1.3**

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## Prolog

A Project Profile titled “Proposed Comprehensive Development at Lin Barn Tsuen, Yuen Long, N.T.” was submitted to the Authority on 15 Dec 2011 with the EIA Study Brief subsequently issued on 26 Jan 2012.

Since then, an EIA has been carried out. Preliminary results suggest that the ecological merits of the original proposal could be higher if the northern dry land zoned “Conservation Area” (“CA”) can be converted into wetland so that the proposed wetland restoration in part of the “Other Specified Uses (Comprehensive Development to include Wetland Restoration Area)” i.e. OU(CDWRA) zone can be made contiguous to allow direct ecological linkage.

To this end, the same Project Proponent – “Birkenhead Properties and Investments Limited” wishes to propose a revision to the site boundary to extend northward to include the intervening land in the “CA” zone so as to enlarge the area available for wetland restoration.

The consequence of this change in project boundary will create no increase in the developable area for property but a substantial enlargement of useable and contiguous land for wetland restoration as well as the envisaged net positive improvements in ecological value of the dry land in the CA zone resulting from this revision.

Because of a substantial change in the Project boundary, a re-submission of the revised Project Profile is necessary to apply for a new EIA Study Brief under the EIAO.

This revision to the original designated project is now renamed as the “Proposed Alternative Comprehensive Development near Lin Barn Tsuen, Yuen Long, N.T.”

This alternative proposal is not supposed to replace the original but will exist in parallel until such time the increase in ecological merits is confirmed in the coming EIA study.

The following chapters outline a profile of the revised designated project in respect of the likely environmental impacts that could be managed and mitigated. The key issues are expected to be similar to the original while the increase in ecological merits is obvious in the current revision.

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## **1. BASIC INFORMATION**

### **1.1 Project Title**

Proposed Alternative Comprehensive Development near Lin Barn Tsuen, Yuen Long, N.T. (the Project)

### **1.2 Purpose and Nature of Project**

The Proposed Project will comprise low-rise comprehensive development to the north of the Castle Peak Road – San Tin Section and San Tin Highway. The Project Site is zoned “Other Specified Uses (Comprehensive Development to include Wetland Restoration Area)” (“OU(CDWRA)”) and “Conservation Area” (“CA”) on the Approved San Tin Outline Zoning Plan (OZP No. S/YL-ST/8).

Active and abandoned open storages, container trailer park, temporary structures and vacant lands are found within the Project Site. With due considerations given to the design of the residential development and the wetland restoration area, the Project will serve to upgrade the existing rural environment by helping to phase out open storage and port back-up uses, and restore the wetlands within the Project Site, thereby aligning with the planning intention of the “OU(CDWRA)” and “CA” zones as stipulated in the approved OZP.

### **1.3 Name of the Project Proponent**

The Project Proponent is Birkenhead Properties and Investments Limited.

### **1.4 Location and Scale of Project**

The Project will occupy an area of about 24 ha in Lot 769 (part) in D.D.99 and the adjoining Government land of Lin Barn Tsuen, San Tin, Yuen Long, New Territories (Figure 1-1 refers). The ponds within the Project Site had been filled with the land formed prior to the publication of the San Tin Interim Development Permission Area Plan. The existing villages of Lin Barn Tsuen and Mai Po Lo Wai are located to the north and southwest of the Project Site, respectively.

The Project will comprise two major components – residential development and wetland restoration.

The residential development would be entirely within the OU(CDWRA) zone of the Project Site with a building height of not more than 6 storeys at a plot ratio of not more than 0.4. The wetland restoration would include a part of the OU(CDWRA) zone as well as the entire CA zone within the Project Site boundary.

### **1.5 Name and Type of Designated Project to be Covered by the Project Profile**

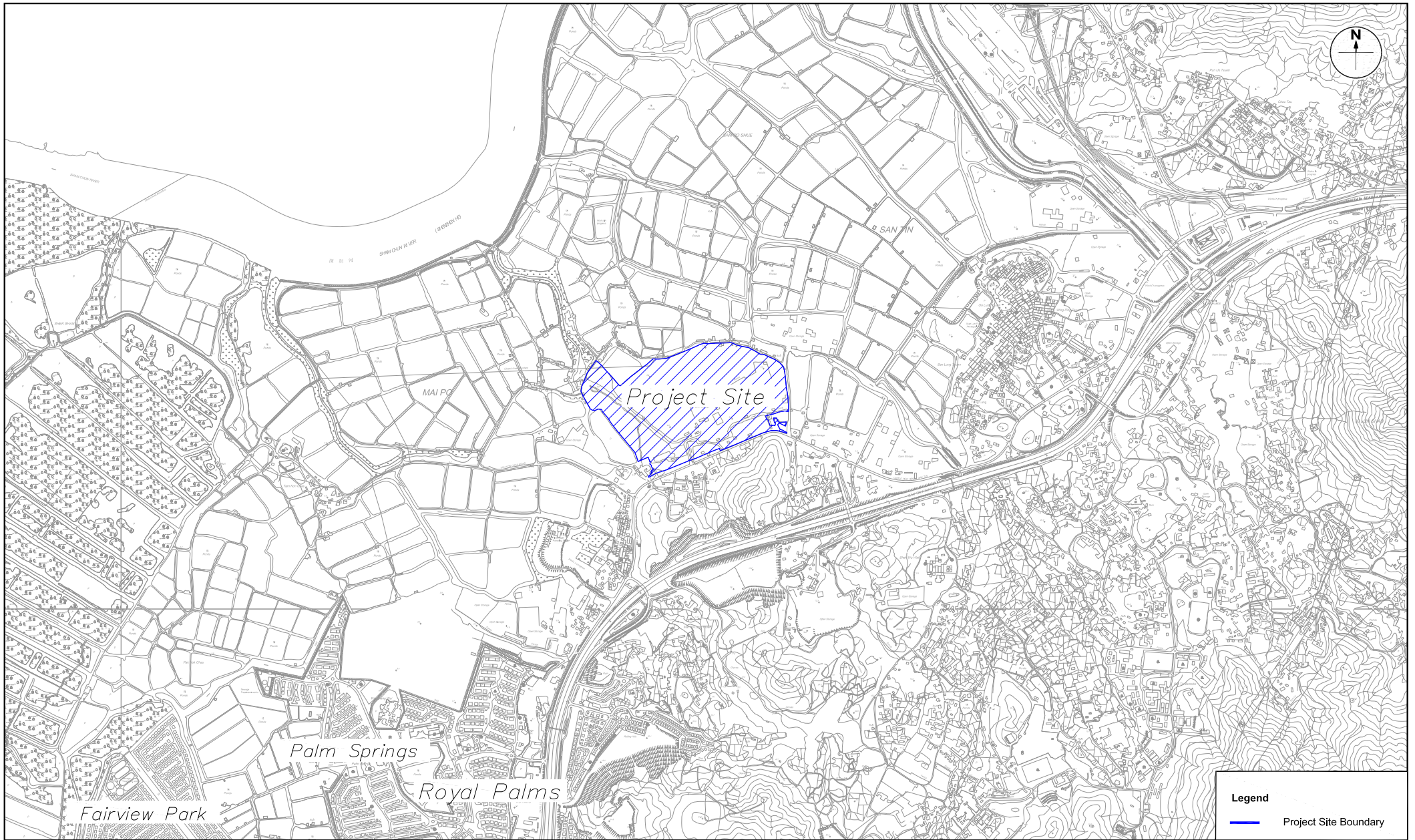
The proposed development is a designated project (DP) by virtue of Item P.1, Part I, Schedule 2 of the *Environmental Impact Assessment Ordinance* (EIAO) (Cap. 499), i.e. “a residential or recreational development, other than New Territories exempted houses, within Deep Bay Buffer Zone 1 or 2”.

### **1.6 Contact Person**

The following person may be contacted for enquiries concerning the Project:

Mr. David Yeung, ENVIRON Hong Kong Limited, Tel. 3743 0788.






**Figure:** 1-1

**Title:** Location of the Project

**Project:** Proposed Alternative Comprehensive Development near Lin Barn Tsuen, Yuen Long, N.T.

**Legend**

 Project Site Boundary

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Date: Oct 2012

## **2. OUTLINE OF THE IMPLEMENTATION PROGRAMME**

### **2.1 Project Program**

The Project is being planned and is designed by consultants appointed by the Project Proponent. An application will be made separately to the Town Planning Board under the provisions of the Town Planning Ordinance (TPO)(Cap. 131). The construction works for the Project are expected to commence in 2015 for completion in 2020.

### **2.2 Project Interface**

There is no major known or committed project in the immediate vicinity that would likely to interface with the Project.

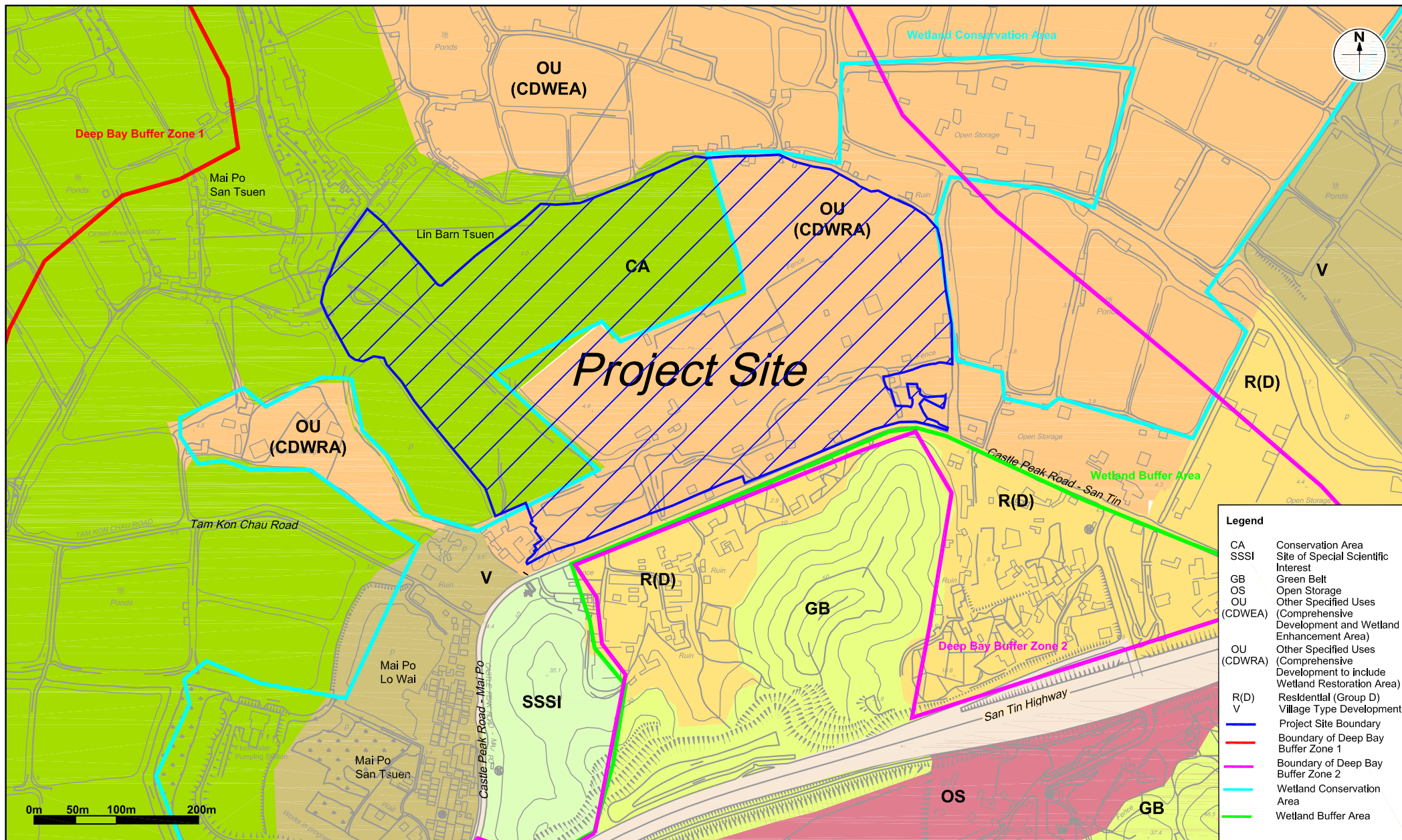
### **3. MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT**

Major elements of the surrounding environment to be considered include existing ponds in the adjoining areas of the “OU(CDWRA)” zone and the “Conservation Area” (“CA”) zone. The Mai Po Village Site of Special Scientific Interest (SSSI) is located to the southwest of the Project Site and south of the Castle Peak Road – San Tin Section.

A number of roads are located in the vicinity of the Project Site, such as the San Tin Highway and the Castle Peak Road – San Tin Section, with the latter directly fronting the southern boundary of the Project Site.

Existing air, noise, and visual sensitive receivers in the vicinity of the Project are mainly residential uses at Lin Barn Tsuen, Mai Po Lo Wai and Mai Po San Tsuen. With reference to the landuse zones in the surrounding areas (Figure 3-1 refers), additional sensitive receivers may also come on board in the future.





**Figure:** 3-1

**Title:** Existing Land Use Zoning for the Project and Adjacent Areas  
 (Source: S/YL-ST/8 - San Tin OZP, dated Dec 2006, S/YL-MP/6 -Mai Po & Fairview Park OZP, dated Feb 2005 and S/YL-NTM/12 - Ngau Tam Mei OZP, dated Dec 2006)

**Project:** Proposed Alternative Comprehensive Development near Lin Barn Tsuen, Yuen Long, N.T.

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## **4. POSSIBLE IMPACT ON THE ENVIRONMENT**

### **4.1 Air Quality**

#### **4.1.1 Construction Phase Impact**

Construction dust would be generated from construction activities such as site formation, excavation, materials handling, vehicle movements and wind erosion of unpaved areas. Potential impacts from construction dust are however expected to be short-term and could be readily mitigated by the adoption of good site practice through the enforcement of environmental control clauses in the works contracts.

#### **4.1.2 Operational Phase Impact**

Air quality impacts may arise as a result of traffic emissions from vehicles on the roads in the vicinity of the Project Site (Figure 3-1 refers). The major road nearest the Project Site is the Castle Peak Road – San Tin Section, which is classified as a Rural Road. As the Hong Kong Planning Standards and Guidelines (HKPSG) has not made any recommendations on the buffer distance between a Rural Road and air sensitive uses, the minimum buffer distance of 5m between active and passive recreational uses and a Local Distributor recommended by HKPSG is used as reference. With the buffer distance between the southern boundary of the Project Site and Castle Peak Road – San Tin Section possibly less than 5m, the potential air quality impacts from vehicular emissions will be further reviewed and investigated during the EIA study.

No industrial chimneys were identified immediately adjacent to the Project Site. The presence of chimneys will be reviewed during the EIA study stage and a Chimney Emission Impact Assessment will be carried out if any chimneys were found.

### **4.2 Noise**

#### **4.2.1 Construction Phase Impact**

The use of powered mechanical equipment will be the major source of noise during the construction of the Project. The impacts are however expected to be short-term and could be readily mitigated by the implementation of effective control measures.

#### **4.2.2 Operational Phase Impact**

Road traffic on the surrounding road network may give rise to noise impacts on the Project during the operational phase but they are anticipated to be satisfactorily addressed through the adoption of appropriate development scheme layout and building designs for the Project. Potential industrial noise impacts may arise from the operation of the open storage areas nearby, such as those to the north and west of the Project Site. A detailed industrial noise assessment will be undertaken during the EIA study.

### **4.3 Water Quality**

#### **4.3.1 Construction Phase Impact**

Water quality impacts during the construction phase may include additional flow from site runoff, increase in suspended solids and turbidity, change in pH values, spillage of waste oils and sewage generated by the site workforce. These impacts are however expected to be minimized through the provision of proper construction site drainage and good site management.

### **4.3.2 Operational Phase Impact**

Sewage will be generated from the Project upon occupation of the proposed residential development. There is currently no public sewerage in the immediate vicinity of the Project Site. Provision of public sewers is being planned by the Government but there is no committed programme. Interim sewage treatment facilities may therefore be required to allow proper treatment for disposal of sewage generated before public sewerage connections are available.

## **4.4 Waste Management**

### **4.4.1 Construction Phase Impact**

Waste generated during the construction of the Project will mainly comprise vegetation, excavated materials and materials from demolition during the site clearance/ formation stage. Other types of waste may include small amounts of chemical waste and general refuse. The volume of wastes to be generated will be quantified with the implications on waste management considered in the EIA study.

### **4.4.2 Operational Phase Impact**

The proposed residential use of the Project will generate municipal waste. No significant impacts are expected with appropriate waste collection provisions in the design of the Project, and the implementation of proper waste management procedures.

## **4.5 Ecology**

### **4.5.1 Construction Phase Impact**

The majority of the Project Site has been formed and paved. Existing vegetation is found mainly along the site boundaries. The construction of the Project will likely require changes to the existing habitats within the Project Site, hence causing direct loss of these habitats. Ecological disturbance may also arise as a result of construction activities. The ecological value of the habitats involved will be evaluated and the impacts from the Project on ecology will be assessed during the EIA study. The potential implications of the Project on the egrettries in the surrounding area, namely the ones at Mai Po Village and Mai Po Lung Tsuen will also be investigated. Appropriate measures to address potential ecological impacts will be considered during the layout planning and design of the Project.

### **4.5.2 Operational Phase Impact**

The key ecological issues associated with the Project will be the loss of existing habitats within the Project Site and the potential implications to the egrettries nearby. With the incorporation of appropriate measures during the planning and design of the Project, including the provision of wetland restoration area, ecological impacts during the operational phase of the proposed residential development are expected to be fully addressed.

## **4.6 Cultural Heritage**

Based on the latest information published by the Antiquities and Monuments Office (AMO) on their website, no known sites of cultural heritage are located within and in the immediate vicinity of the Project Site. The nearest site of cultural heritage, the Mai Po Archaeological Site, is over 500m from the nearest boundary of the Project Site.

## **4.7 Land Contamination**

### **4.7.1 Construction Phase Impact**

The Project Site has been mainly used for open storage and container trailer park with the majority of the surface paved. The potential of land contamination will be reviewed during the EIA study, especially for the isolated unpaved areas within the Project Site. If visual evidence of potential land contamination is found, further investigations will be conducted to identify the nature and extent of contamination.

### **4.7.2 Operational Phase Impact**

The operation of the Project will involve only residential use, and therefore potential impacts relating to land contamination are not expected from the Project.

## **4.8 Landscape and Visual**

### **4.8.1 Construction Phase Impact**

Temporary landscape and visual impacts during the construction phase may arise as a result of disturbance to the existing landscape of the Project Site due to presence of construction plant and temporary works.

### **4.8.2 Operational Phase Impact**

With the relative poor visual amenity and somewhat degraded landscape character of the Project Site at present, the Project is likely to represent a source of positive landscape and visual impact in the longer term through the introduction of proper planning and environmental upgrading. Details of the landscape proposal will be developed during the EIA study.

## **5. POTENTIAL MEASURES TO MINIMIZE ENVIRONMENTAL IMPACTS**

During the EIA study, potential environmental impacts associated with the Project will be further investigated in accordance with the Study Brief to be issued. Appropriate mitigation measures will be proposed, if required, to reduce the identified impacts to an acceptable level. Environmental monitoring and audit of potential impacts will be recommended for the construction and operational phases of the Project where appropriate. The following are environmental measures that are currently envisaged to be incorporated in the Project. These will be further refined or elaborated, if necessary, after detailed assessments are completed in the EIA study.

### **5.1 Air Quality**

#### **5.1.1 Construction Phase**

The contractors of the Project will be required to follow the requirements of the Air Pollution Control (Construction Dust) Regulation. Good site management practices and dust control measures such as wetting, vehicle speed control and stockpile covering will be implemented to minimize construction dust impacts on sensitive receivers.

#### **5.1.2 Operational Phase**

Adverse air quality impact during the operational phase is not expected in view of the considerations to be given in the layout design to provide the necessary buffer distance between air sensitive uses within the Project Site and nearby roads, and the absence of industrial emission sources within the 500m study area of the Project.

### **5.2 Noise**

#### **5.2.1 Construction Phase**

The contractor of the Project will be required to follow the relevant requirements of the Noise Control Ordinance. Good site management practices and noise control measures such as proper scheduling of works, locating noisy machinery away from sensitive receivers, use of silencers and mufflers, use of noise enclosure, regular maintenance of plant and equipment will be implemented.

#### **5.2.2 Operational Phase**

The exact details and extent of noise mitigation measures that may be required for the operation of the Project will be determined in the EIA study based on the results of detailed assessments to be conducted. In general, road traffic noise impacts on the residential units of the Project can be mitigated through appropriate site layout and building design and where necessary, the use of noise barriers.

Industrial noise impacts upon the proposed residential development are expected to be addressed similarly through layout and building design.

### **5.3 Water Quality**

#### **5.3.1 Construction Phase**

The contractor of the Project will be required to follow the guidelines in Practice Note for Professional Persons on Construction Site Drainage (ProPECC PN 1/94) published by Environmental Protection Department (EPD) with respect to runoff control during the construction period. Site runoff and wastewater will be properly contained, collected and handled before disposal.



### **5.3.2 Operational Phase**

Proper means of treatment and/or disposal of sewage generated from the operation of the Project will be provided to ensure that it will not result in a net increase in water pollution load to the Deep Bay.

## **5.4 Construction Waste**

### **5.4.1 Construction Phase**

The contractor of the Project will be required to follow relevant provisions of the Waste Disposal Ordinance. Good site management practices and waste control measures (such as reuse of excavated materials, on-site sorting, waste recycling, and adoption of the trip ticket system) will be implemented to control potential waste impacts.

Chemical and oily wastes that may be generated from the construction activities, vehicle, and plant maintenance and oil interceptors will be disposed of in strict compliance with the Waste Disposal (Chemical Waste) (General) Regulations.

## **5.5 Ecology**

### **5.5.1 Construction Phase**

Due considerations will be given during the EIA study to the habitat loss and other ecological impact that may arise from the Project and any proposal for mitigation, if found to be required during the EIA study, will be agreed with relevant authorities before the implementation of the Project.

The extent and degree of ecological disturbance from construction activities will be minimized as far as possible through measures such as visual screening, control of site runoff and careful scheduling of construction works.

The effectiveness of the proposed mitigation measures will also be monitored during the construction phase as part of the Environmental Monitoring and Audit (EM&A) programme to be developed in the EIA study.

### **5.5.2 Operational Phase**

Ecological impacts are not anticipated from operation of the Project. The effectiveness of any proposed ecological mitigation that extends into the operational phase will be monitored through the EM&A programme to be developed in the EIA study.

## **5.6 Cultural Heritage**

No measures to protect sites of cultural heritage are required given the absence of these features within or in the vicinity of the Project Site.

## **5.7 Land Contamination**

The potential of land contamination will be reviewed and, if visual evidence of potential land contamination were found, the nature and extent of land contamination within the Project Site will be investigated. In the event that potential exposure to contaminated materials during the construction phase is identified, workers should take appropriate measures such as wearing protective clothing. Contaminated materials should be removed and appropriate disposal should be arranged. Such materials should also be properly covered before they are transported away from the construction site.



## 5.8 Landscape and Visual

### 5.8.1 Construction Phase

The following measures will be considered for minimizing the potential landscape and visual impacts associated with the Project during the construction phase:

- Retention of Valuable Landscape Resources on Site - valuable landscape resources found on site (including trees, topsoil, etc) will be retained where possible for incorporation in the proposed development;
- Good Construction Practice – Landscape and visual impacts during construction will be minimized by regulation of working hours, minimization of the duration of the works, and control of lighting on site;
- Tree Protection - Trees to be retained within or adjacent to the works area will be carefully protected to avoid damage by construction machinery as well as to prevent dumping of materials or compaction of soil around tree roots; and
- Tree Transplanting - Any trees identified as affected by the Project will be considered for transplanting to other areas within the Project Site or nearby suitable sites. The feasibility of transplantation will depend on a number of factors such as the size, health and species of the trees, as well as the condition of the local terrain. Adequate time will be allowed to prepare trees for transplantation.

Relevant mitigation measures will be included in the contractual clauses for the works and the implementation of these measures will also be audited as part of the EM&A programme during the construction phase.

### 5.8.2 Operational Phase

Landscape and visual mitigation measures to be incorporated for the Project including the following:

- Compensatory Amenity – the creation of amenity planting will be one of the means for compensating loss of existing vegetation on-site;
- Screen Planting - Planting of trees along the periphery of the Project Site will assist in screening visual impacts on VSRs;
- Aesthetic Treatment of Buildings – Sensitive treatment in terms of architectural form and colour of the buildings will assist in reducing their visual impacts; and
- Optimal Site Layout - alternative layouts will be considered to ensure that the landscape and visual impacts associated with the proposed development are minimized. The landscape and visual character may also be incorporated in the design of the buildings.

The details of landscape and visual impact mitigation measures will be formulated in the EIA study with respect to the findings of the assessment therein, and these measures will be incorporated at an early stage of the design process.

## **6. USE OF PREVIOUSLY APPROVED EIA REPORTS**

Construction of Cycle Tracks and the Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung River (EIAO Register Number: AEIAR-133/2009).