

# ENVIRONMENTAL OUTCOME AND GAINS THROUGH THE STATUTORY ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

法定環境影響評估程序的環境成果與增益

## SHUEN WAN GOLF COURSE

船灣高爾夫球場

Maximise the night roosting areas for Collared Crow and Black Kite during construction and operation phases  
最大限度地增加和保留白頸鴉和黑鳶的夜間棲息地

Use food waste and grass clipping composting for organic farming for restaurant and landscaping areas  
將廚餘和修剪草堆肥用於有機農業供應餐廳和景觀區

Adopt rainwater harvesting and recycling system to minimise the possible escape of residual fertilizer and fresh water consumption  
採用雨水攔截和回收系統，減少殘餘肥料污染地表徑流和減少使用食水

Increase recreational open space for public enjoyment  
增加休閒休憩用地供公眾享用

Use of photovoltaic panels and LED lighting to save energy consumption  
應用太陽能板和 LED 照明以節約能源

### QUICK LINKS 快速連結

[Project Description 工程項目詳情](#)

[Nature of the Designated Project 指定工程項目的](#)

[Key Environmental Issues 主要環境問題](#)

[Key Environmental Mitigation Measures 主要環境緩解措施](#)

[Environmental Outcomes and Gains 環境成果與增益](#)

## **Shuen Wan Golf Course 船灣高爾夫球場**

EIA Study Brief (No. ESB-303/2017) issued on 26 October 2017

EIA Report (No. AEIAR-221/2019) approved on 5 July 2019

EP (No. EP-517/2019) was granted on 20 September 2019

環評研究概要 (編號： ESB-303/2017) 發出日期: 2017 年 10 月 26 日

環境影響評估報告 (編號： AEIAR-221/2019) 批准日期: 2019 年 7 月 5 日

環境許可證 (No. EP-517/2019) 獲發日期: 2019 年 9 月 20 日

### **Project Description 工程項目詳情**

To implement the prevailing land use zoning at the Shuen Wan Restored Landfill on Tai Po in the Outline Zoning Plan No. S/TP/28 and to fulfil the aspiration from the district council to implement a golf course. The Project involves the construction and operation of an 18-hole golf course with an area approximately 53 ha and its ancillary facilities, and associated infrastructure such as drainage system, sewerage system, irrigation system, etc. to support its daily operation.

Under the non-in-situ land exchange proposal, the private land in Sha Lo Tung which has high ecological values is exchanged with the land at the Shuen Wan Restored Landfill in Tai Po for developing a private golf course. As a result, the Sha Lo Tung site would be considered consolidated as government land for active conservation management, avoiding degradation and damage for long-term public enjoyment.

在大埔船灣已修復堆填區推行分區計劃大綱第 S/TP/28 號現行的土地用途分區計劃，並落實區議會提出的建設高爾夫球場的期望。該工程涉及建設和運營一個面積約 53 公頃的 18 洞高爾夫球場及其附屬設施，以及支持其日常運作的基建配備，包括排水系統、污水系統、灌溉系統等。

根據非原址換地建議，沙螺洞具有高生態價值的私人土地與大埔船灣修復堆填區的土地交換發展私人高爾夫球場。因此，沙螺洞用地會變為政府土地，以方便進行保育管理，避免退化和損壞，以供長期公眾享用。

## Nature of the Designated Project under EIA Ordinance 《環境影響評估條例》指定工程項目的性質

The Project includes the following designated projects (DPs) under the EIA Ordinance:

本工程項目包含以下《環境影響評估條例》(《環評條例》)的指定工程項目：

Schedule 2, Part I 附表 2 第 I 部分	Item O.1 - An outdoor golf course and all managed turf areas. 項目 O.1 - 戶外高爾夫球場及全部受管理的草地範圍。
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## Key Environmental Issues 主要環境問題

Impacts 影響	Concerns 關注
Ecological 生態	<ul style="list-style-type: none"><li>• Loss or disturbance of terrestrial man-made habitats</li><li>• Silt-laden runoff from works areas to adjacent water bodies</li><li>• Disturbance to nearby habitats during construction</li><li>• Impact on ecological resources in Tolo Harbour by sewage and light glare</li><li>• 喪失或干擾人造棲息地</li><li>• 從工地流到鄰近水體的含泥徑流</li><li>• 施工期間對附近棲息地的干擾</li><li>• 污水和強光對吐露港生態資源的影響</li></ul>
Land Contamination 土地污染	<ul style="list-style-type: none"><li>• Potential pollution by agrochemicals application during operation phases</li><li>• 對天然草坪施用農藥有機會造成污染</li></ul>
Water Quality 水質	<ul style="list-style-type: none"><li>• Water quality impact to existing water sensitive receivers and surface runoff during construction and operation phases</li><li>• Sewage water generate from existing sewage infrastructure</li><li>• 施工和運營期間的地表徑流對現有水敏感受體的水質影響</li><li>• 來自現有污水基礎設施的污水</li></ul>

Landfill Gas 堆填氣體	<ul style="list-style-type: none"> <li>Remained landfill gas and leachate leakage during operational phase</li> <li>運營期間殘留的沼氣和滲濾液洩漏</li> </ul>
Hazard to Life 生命危害	<ul style="list-style-type: none"> <li>One-third of the project site falls within the 1,000m consultation zone of the Tai Po Gas Production Plant which is a Potentially Hazardous Installation</li> <li>項目選址的三分之一位於潛在危險裝置香港大埔煤氣廠的 1,000 米諮詢區內</li> </ul>
Landscape and Visual 景觀及視覺	<ul style="list-style-type: none"> <li>8,998 out of 11,198 number of existing trees will be felled</li> <li>Potential significant visual impacts on residents at Lo Fai Road and Ting Kok Road</li> <li>將砍伐 11,198 棵現有樹木中的 8,998 棵</li> <li>對露輝路和汀角路居民造成潛在嚴重視覺影響</li> </ul>

### Key Environmental Mitigation Measures 主要環境緩解措施

Impacts 影響	Measures 措施
Ecological 生態	<ul style="list-style-type: none"> <li>The layout design of golf court maximised the night roosting areas for Collared Crow and Black Kite</li> <li>Fencing will be erected surrounding the preserved tree groups for protection</li> <li>Heavy standard trees will be incorporated into the soft landscape works to speed up the establishment of the trees</li> <li>Works hours of construction plants in certain locations will be restricted to halt at least one hour before sunset to avoid disturbance to the roosting birds</li> <li>Maximise the preserved trees as the roosting sites for Collared Crow and Black Kite during construction</li> <li>高爾夫球場的設計，最大限度地增加了白頸鴉和黑鳶的夜間棲息地</li> </ul>

	<ul style="list-style-type: none"> <li>• 將在保留下來的樹群周圍豎立圍欄作為保護</li> <li>• 景觀工程將使用高品質樹木，以加快建樹</li> <li>• 部分地點的建築工作時間將被限制在日落前至少一小時停止，以免干擾鳥類棲息</li> <li>• 在施工過程中，保留最大限度的樹木作為白頸鴉和黑鳶的棲息地</li> </ul>
Land Contamination 土地污染	<ul style="list-style-type: none"> <li>• Management of proper application of agrochemicals and implement measures to be taken in case of accidental chemical spillage</li> <li>• 確保正確使用農用化學品及在化學品意外洩漏時採取措施</li> </ul>
Water Quality 水質	<ul style="list-style-type: none"> <li>• Design a drainage system to withstand rainstorms of a 50-year return period</li> <li>• Design a water storage tank with a total volume of 30,000m<sup>3</sup> and reuse for irrigation</li> <li>• Properly locate the outfall of water storage tank to reduce water quality impact from surface runoff</li> <li>• Install standard silt traps in drainage system to reduce the impacts from access road runoff</li> <li>• Convey the sewage to Tai Po Sewage Treatment Works for treatment</li> <li>• 設計能夠抵禦 50 年一遇暴雨的排水系統</li> <li>• 設計一個總容積為 30,000m<sup>3</sup>的蓄水缸並用於灌溉</li> <li>• 妥善安置蓄水池的排污口，以減少地表徑流對水質的影響</li> <li>• 在排水系統安裝標準的隔泥器，以減少進出地表徑流的影響</li> <li>• 將污水輸送至大埔污水處理廠處理</li> </ul>
Landfill Gas 沼氣風險	<ul style="list-style-type: none"> <li>• Application of active control system, passive control system, gas detection system and management according to the risk level</li> </ul>



	<ul style="list-style-type: none"> <li>• 使用主動控制系統、被動控制系統、氣體檢測系統並根據風險等級進行管理</li> </ul>
Hazard to Life 生命危害	<ul style="list-style-type: none"> <li>• Implement precautionary measures including provision of emergency plan for efficient evacuation and safety trainings</li> <li>• 制定及實施預防措施，包括為有效疏散和安全培訓提供應急計劃</li> </ul>
Landscape and Visual 景觀及視覺	<ul style="list-style-type: none"> <li>• Compensatory planting ratio of 1:1 by planting 4,180 trees and 4,818 whips</li> <li>• Implementation of turf area, shrub planting and landscape pond to enhance the landscape and amenity value and integrate with the seashore context</li> <li>• Use of directional lights and limited lux level to minimise glare and light nuisance</li> <li>• 以一比一的比例種植樹木,包括 4,180 棵新種植的樹木及 4,818 棵樹苗</li> <li>• 引入草坪區、灌木種植和加入景觀池，以提升景觀和視覺價值，並與海濱環境相融合</li> <li>• 使用定向燈和有限的勒克斯水平以最大程度減少眩光和光滋擾</li> </ul>

## Environmental Outcomes and Gains 環境成果與增益

### 1. Ecological and landscape enhancements 加強生態和景觀

- Replacing the amenity landscape of the ex-landfill site with a recreational landscape.
- Planting new trees surrounding the play areas and in-fill whips on preserved slopes and enhance the landscape character
- Benefiting the general public with increase of recreation uses in Tai Po district
- Replacing exotic or pioneer species by native species to provide more resources and increase utilisation of wildlife

- Vertical green walls along the at grade water tanks to enhance visual amenity
- 舊堆填區的景觀美化改變為富本地景觀特色及生物多樣性 的休閒景觀
- 在高爾夫球場周圍種植新樹，並於原有斜坡中加入新樹苗，提升景觀特質
- 增加在大埔區的康樂用地，造福大眾
- 用本地物種取代外來或先鋒物種，為附近的野生動物改善整體的生態價值
- 沿地面水槽的垂直綠化牆以提升視覺舒適度



Bird's-eye view from south eastern edge of the site abutting Tolo Harbour  
從吐露港東南面的邊緣鳥瞰

2. Minimizing Water Quality Impact 減低對水質的影響

- No discharge of first flush surface runoff to Tolo Harbour with the implementation of water storage tanks
- No discharge from water storage tanks to Tolo Harbour
- No marine construction works
- Enable rainfall infiltration and minimise surface runoff quantity by permeable surfaces
- Optimal use of agrochemicals
- 儲水缸能堵截首次地表徑流並進行沉積作用，不會排放至吐露港
- 儲水缸徑流不會排放到吐露港
- 沒有海上工程
- 通過透水的地面增加滲透並最大限度地攔截地表徑流
- 適當使用農藥

3. Waste and fresh water consumption minimization 減少廢物和淡水消耗

- Make use of felled trees to produce wood chips for garden mulch
- Food Waste composting for organic farming for restaurant and landscaping areas
- Use recycled glass bricks for construction of footpath
- Compost grass clippings and food waste
- Rainwater harvesting and recycling system will be adopted
- 利用砍伐的樹木生產用於花園的覆蓋物
- 利用分解的廚餘在餐廳及園景區進行有機種植
- 於行人路使用再造玻璃磚
- 把草屑及廚餘堆肥
- 將採用雨水收集和循環再用系統





Permeable surfaces 透水的地面

4. Promote the use of e-cars to abate roadside air quality emissions

推廣使用電動車減少路邊車輛排放

- E-shuttles and associated charging facilities will be installed in car park
- Charging facilities for visitor car parks will be stalled in car park
- 電動穿梭巴士及庫停車場內裝置相應的充電設施
- 停車場提供訪客使用的充電設施



Electric car and charging facilities 電動車及充電設施

5. Minimise energy consumption 節約能源

- Application of photovoltaic (PV) panels (e.g. street lights along the access road, external lighting system for ancillary facilities, etc.)
- Wind scoop / wind turbine for generation of electricity for the ancillary facilities
- Priority using of LED lighting

- 建造太陽能板 (如沿著通道的街燈、 附屬設施的戶外燈光系統等)
- 於附屬設施使用風斗/ 風力發電機
- 優先使用 LED 燈



PV Panels 太陽能板

**Link and References 連結與參考**

- [Executive Summary 行政摘要](#)
- [Environmental Impact Assessment Report 環境影響評估報告](#)
- [Advisory Council on the Environment - Environmental Impact Assessment Subcommittee 環境諮詢委員會- 環境影響評估小組會議文件 \(ACE-EIA Paper 01/2019\)](#)